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ABSTRACT

This paper reports on two studies, one quantitative and the other qualitative, on the effectiveness and influence of Freshman Interest Groups (FIGs) at the University of Washington. A quantitative panel study compared 442 freshmen participating in 21 FIGs with 1818 non-participating freshmen. Findings indicated that the FIG program provided a modest, though non-trivial benefit to participants including higher grade point averages and increased persistence into the second year. Participation in the Writing Link FIGs appeared most beneficial. The qualitative study findings are presented in three sections. The first section emphasizes that much of the influence of the FIGs was in the realm of social relationships among students. The second section describes the predominant view of students that large classes, combined with a lecture style of teaching, tended to discourage classroom participation or attendance. The third section reports that students viewed learning primarily as collecting information, as related to talking, and in relation to grades. FIGs were viewed as ways of networking with peers in gathering information and as a means of learning through personal interaction. Appendices, comprising half the report, provide the survey questionnaires and extensive tables of descriptive data. (Contains 23 references.) (GLR)

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ED 368 269

National Center for Postsecondary Teaching, Learning, and Assessment

A Longitudinal Study of Freshman Interest Groups At the University of Washington

Vincent Tinto and Anne Goodsell

Syracuse University

HE027285

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EXECUTIVE SUMMARY

Quantitative Panel Study: Tracing the Impacts of Participation in Freshman Interest Groups

Two panels of students were followed over the course of their first year, one consisting of participants in the Freshmen Interest Group program, another of students enrolled in the first year sociology and chemistry classes. Two survey questionnaires were administered to the members of the two panels, the first during the beginning of the Fall quarter, the second during the Spring quarter of that academic year. Additional information on performance and persistence was obtained from institutional records during the following Fall quarter.

Three types of analyses were carried out. Descriptive analyses were used to compare the attributes, experiences, gains, perceptions, and outcomes of FIG and comparison class students. They were also utilized to compare students who enrolled early as opposed to late in the registration process and students who participated in the Writing Link FIGs and contrasted to Non-Writing Link FIGs. Discriminant stepwise analysis were employed to determine to what degree different attributes, experiences, gains, perceptions, and outcomes distinguish between those who persist to the second year of college and those who do not. Finally, logit regression analysis was used to gauge to what degree different attributes, experiences, gains, perceptions, and outcomes predict the likelihood that individuals will persist onto the second year of college.

The quantitative analyses suggest that the Freshman Interest Group program provides a modest, though non-trival, benefit to its participants. Though participation in FIGs generally was not associated with any greater involvment in a range of activities or in self-reported estimates of gain over the course of the year than was participation in comparison classes, it was associated with more positive views of other students, the campus climate, and one's own involvement in the university. More importantly, participation in the FIGs was associated both with somewhat greater grade point average and increased persistence onto the second year of college. This positive persistence outcome was especially evident when students were asked whether they would come back to the University had they the opportunity to "do it over again."

Additional analysis indicates that the benefits accruing from participation in a FIG can not be easily attributed to any obvious pattern of self-selection of students into the FIGs or to the varying attributes of those who choose FIGs over the regular first quarter curriculum. Rather, the research suggests that the benefits of FIG participation must be attributed, at least in part, to something the FIGs do.

Separate analysis among FIG students suggests that participation in the Writing Link FIGs yields the greatest academic benefit to students especially in increasing their involvement in a range of course, writing, and faculty contact activities. As contrasted to participants in Non-Writing Link FIGs, students in the Writing Link FIGs are more involved in the life of the University and more positive about their experiences during the first year.

Qualitative Case Study: Freshman Interest Groups and Making Sense of a Large University

The qualitative case study focused on students in the Writing Link FIGs. Through observations and both formal and informal interviews, we sought to understand how participation in the FIGs shaped students' experience of their first year at the University.

As we talked to students, we came to understand that Freshman Interest Groups (FIGs) have multiple meanings for students. Students sometimes talked about their FIG in terms of the people in the group. One woman, for instance, talked about the FIG as the group of people and the personal connections that she was able to make. Other students talked about the courses they were taking as "the FIG". For example, the FIG was a collection of courses that were easy to register for and which filled a distribution requirement. Or, the FIG was a collection of courses across which topical connections could be made.

These different meanings that students made of the term "FIG" are important to observe because they point the way toward understanding the different things that FIGs did. Students days are occupied with much more than classes and homework, and that is vital background information. The context in which the FIGs operate is important to understand because it provides a type of baseline against which comments about the FIGs can be understood. It is important to know that students do not think of FIGs only in terms of what classes they are taking. Students also think of FIGs as the people in them, so that when asked how her FIG was,

one woman replied "you mean, the classes or the people?" For this student and others, FIGs were not merely collections of classes, but collections of people as well, and it was the regular contact with the same group of peers more than the continuity of courses that enabled FIGs to have an influence, however small, on the lives of the students.

Findings of the qualitative study are presented in three sections: 1) social dynamics of college, 2) student views of the classroom experience, and 3) what students say about learning. The first section, "If it weren't for the FIG I wouldn't have met anyone", emphasizes that much of the influence of the FIGs was in the realm of social relationships between students and their peers. These were the things that students first talked of when asked about their college experience. For example, the main reason given for joining a FIG was to meet people. At a large university such as the University of Washington, meeting people in classes is not an easy thing to do; students felt more comfortable walking into large classes knowing that members of their FIG were there also. Students also talked about their social interactions with faculty and staff members. It became clear that students were more likely to feel comfortable in situations where they were made to feel that their actions, feelings, and thoughts were of value. Not all students found people who took a personal interest in them, and as such their social integration into the life of the University was halting, at best.

The second section, "Reading the book and taking the test: Student views of the classroom experience" aptly describes what many students encountered. The predominant view expressed by students was that large classes, combined with a lecture style of teaching created an atmosphere of alienation, distance, and detachment. Under these conditions, students reacted in a variety of ways, from sitting passively in a classroom to skipping classes. Students felt that their presence in large. classes would not be missed, so they either absented themselves in mind or body. This is not to say that they were not concerned with getting the information from classes. Students used a variety of means for getting information--asking other FIG members for notes, buying notes, and reading the class text book. Very little personal interaction, however, was necessary for these types of classrooms. As one student said, sometimes she felt like all she was doing was "reading the book and taking the test." The section concludes, with student comments about how FIGs could alter the effects of these factors. In the small writing classes that were a part of the FIG, students felt peer pressure to attend classes. They also developed a network of peers to assist with getting and clarifying information, and occasionally study together.

The third section, "Student Views of Learning", relates the ways that students thought about their learning process. Within their writing classes and across their other classes, students either valued the interactions with their peers and professors, or valued only the information that came from the professor. Some students talked about liking their interactions with peers because doing so made them aware of an audience beyond the professor. They were able to try out ideas and refine their writing with other peers better than they could alone. Other students did not like their interactions with peers because they felt it interfered with getting feedback from the professor, or was superfluous to the feedback of the professor. Students did not just talk about what they liked or dislike in classes, they also talked about the nature of their learning experiences. They viewed learning in a variety of ways: as collecting information, as related to talking, and in relation to grades. While some students saw the learning process as one of collecting as much information as possible (and preferably the correct information, as indicated by tests), other students said they learned better when they were able to relate the class information to personal experiences, and talk about them with their peers. FIGs accommodated both types of preferences. Students who were concerned with gathering information had a network of peers from which to draw if they missed class or needed clarification. Students who valued personal interaction as a means of learning were able to establish relationships with a consistent set of peers across their classes.

These findings, taken together, bring us back to the tenets of collaborative learning. Proponents of collaborative learning emphasize that knowledge is a social construction; therefore they urge practitioners to pay attention to the social context of the learning experience. Our findings indicate clearly that students pay a great deal of attention to the social dynamics of their college experience. In addition, practitioners of collaborative learning strive to provide sources of information to students other than the professor. Students learn that they can rely on their own life experiences and those of their peers or family for information. The students at the University of Washington who viewed learning as a process of completing an interactive feedback loop--either through talking or writing--reflected this belief. In these ways, our findings reinforce the assertion that collaborative learning strategies respond to the needs of students in ways that traditional teaching strategies cannot.

PART ONE

THE MISSION AND CHARACTER OF THE PROJECT

OVERVIEW OF THE NCTLA CENTER

The work of the National Center on Postsecondary Teaching, Learning, and Assessment (NCTLA) centers on four questions. These are:

> What is the character of student learning and persistence in American higher education and how is it currently being shaped by student experience in institutions of higher education?
>
> How can student learning and persistence be improved?
>
> How can faculty teaching be improved?
>
> How can innovations in higher education be sustained and integrated into the mainstream of institutional life?

The first question, that concerning the character of student learning and persistence, seeks to describe and understand how student learning and persistence is currently being shaped by institutions of higher education across the country. To answer that question, NCTLA has initiated a longitudinal study of the experiences and learning outcomes of a nationally representative panel of students carefully selected to capture the diversity of both students and institutions of higher education. The selected panel of students is being followed over a two-year period to ascertain to what degree and in what manner their experiences in higher education shape their learning and persistence over that period.

The next two questions, those concerning the improvement of teaching, learning, and persistence involve a series of research projects which examine exemplary practices in the areas of student classroom experience, faculty teaching, curriculum, and student out-of-class experience. These projects seek to describe and explain the success of exemplary practices with an eye toward sharing that information with other institutions who also seek to improve student learning and persistence in the future. The present study is one of these projects.

The last question, that of sustaining change efforts, consists of a series of case studies of institutions that have, in varying degrees, been successful in sustaining change efforts over time. The focus of these studies is to uncover those forms of institutional practice that explain why it is that some institutions have been able to sustain change over the long-term, while others have not.

THE NCTLA PROJECT ON COLLABORATIVE LEARNING

Institutions and Programs

The project on collaborative learning is one of the several projects that focuses on the improvement of teaching, learning, and persistence in higher education. In this instance, the project studies the efforts of three institutions--Seattle Central Community College, The University of Washington, Seattle, and LaGuardia Community College in New York City--to employ collaborative learning strategies to alter the ways in which beginning college students experience the first year of college. Specifically, the project looks at the Coordinated Studies Program at Seattle Central Community College, the Freshman Interest Group Program at The University of Washington, Seattle and the Learning Communities at LaGuardia Community College. In each case, the project concerns itself with understanding how those programs influence student learning and persistence so as to inform other institutions across the nation who also seek to enhance student learning and encourage persistence.

In the broadest dimensions, the use of the term collaborative learning refers to a range of classroom and curricular practices that actively engage students in the learning process. These practices range from the clustering of students into working groups within the classroom, to the linking of course content between classrooms, to bringing students and faculty together in ways which combine several classes into one larger class. However structured, collaborative learning strategies share several common threads, not the least of which is that students are expected to work together and become active participants in the classroom. In this way, all collaborative

learning strategies emphasize the development of student learning communities and their importance to the learning process.

The choice of institutions and collaborative learning programs was dictated by four criteria. First, the program had to have been in place for a number of years and been a significant, institutionalized part of institutional life. It had to be well-supported and reach a significant section of the entering student body. Second, it had to occur in an institutional setting that could be said to be like that of many other settings and serve a diverse, not specialized, student body. It could not be found either in a unique setting or reach only a very narrow slice of the student body (e.g. only honors students). Given our underlying concern with policy and educational change, we wanted our study to appeal to a broad national audience who, in response to the study, could say "if it could happen there, it could happen anywhere." Third, the selected programs had to serve beginning students, not just those who were able to persist to gain entry to a program. We wanted to focus on programs that involved students in their first year of college because it is in that year, more than any other, that investments in programs have the greatest impact on learning and persistence within the institution. Fourth, the selected programs had to span the range of collaborative learning efforts currently in place across the nation. By doing so, we wanted to understand, within the limits of our resources, how different types of collaborative learning programs shape student learning and persistence in different types of higher educational settings.

Methodology

To describe and understand these programs, the project utilized both quantitative and qualitative research methodologies. In the former case, we employed longitudinal survey methods to study the experiences of beginning college students in both typical and collaborative learning classrooms. In the latter case, we used participant observation and interviewing methods to understand how program participants made sense of their experience in those programs, especially in relation to their learning.

Though separate, the methods were linked by a common concern, namely to understand not only what students experienced, but also how those experiences were associated over time with their behaviors and changing views of learning and their subsequent persistence in higher education. In this very important manner, the methods were complementary to one another, each yielding information that together provided a richer sense of the impact of program participation than any one method could provide on its own.

They were complementary in yet another sense, that of collaborative effort among the research team. The three researchers met on a weekly basis (and during field site visits on a daily basis) to discuss the ongoing research. As a result, developing information from each of the sites and each research strain, qualitative and quantitative, became part of the thinking of the whole group and, in turn, informed the work of each team member.

It must be noted that while the studies assessed the character of student experience, they were not assessments of the programs themselves. That is to say, they were not intended to determine to what degree the programs were achieving their intended goals and in what manner they could be more effective in doing so. While comparative information was obtained on the experiences, behaviors, and persistence outcomes of a comparison group of students, that information was used to understand programs, not judge them.

PART TWO

FRESHMAN INTEREST GROUPS AT THE UNIVERSITY OF WASHINGTON

THE SETTING AND THE PROGRAM

The University of Washington

Before describing the specific details of FIGs or the method of the study, it is important to describe the setting in which the FIGs are placed. The University of Washington is the premier university in the state. This means that it is highly visible in the state and across the country. Students in the state have grown up seeing its football team on television and knowing friends and relatives who have gone there to college. The University of Washington is a multi-purpose university, offering a large variety of degrees to undergraduate and graduate students. And like other large universities, it is home to a vast array of research projects and other activities that shape the campus climate. It is located in Seattle, a location that is attractive to students, many of whom come from smaller towns and cities in the state and surrounding states including Alaska.

The campus of the University of Washington is expansive. It sprawls down the side of a hill and is bordered on two sides by water. The medical complex anchors one corner, parking lots and playing fields anchor another. The retail shops/restaurants of University Avenue border a third side of the campus, and large fraternity and sorority houses complete the frame. To walk from the dorms on the west side of campus to those on the east side takes 15 minutes; an average walk between classes takes 10 minutes. This expanse, together with its enrollment of just over 33,000 students, makes the university a large, imposing place for new students. "Big" was one of the adjectives most used by students to describe the University. Big not only in its perceived size -- many new students think the enrollment is considerably larger than it is -- but also in its social expanse. It is not a place where one frequently runs across friends between classes.

The University of Washington is also a place which offers a wide range of extracurricular experiences to its students. In addition to taking classes, students were involved in many activities. Even during the second week of classes, one-third of the students we encountered talked about their membership in sororities and fraternities. Other students already were involved

in intramural sports, intercollegiate sports, and writing for the campus newspaper. Students also talked about activities in the dorms (watching movies with friends, going out to eat, shopping, partying) and jobs that they held (all of which were off-campus).

Classes are, in this context, but one possible activity among a host of multiple activities available for students. When we asked students to tell us about their days, they usually gave us a chronological run-down including getting out of bed in the morning and returning to it at night, going to meals, working out, going to classes, studying, and hanging out with friends. Indeed, if we were to look at hours spent on various activities as a way of determining what priorities the students held, classes would be near the bottom of the list. Of the approximately 16 waking hours in the average student day, only three hours were spent in class. In addition, most students reported studying between six and 15 hours per week -- the importance of the limited amount of time spent in classes will become clear in later sections as we discuss the relationship between Freshman Interest Groups (FIGs) and academic experiences. FIGs were but one element of the student's overall university experience and as such were not the only influence in their lives.

Freshman Interest Groups

The Freshman Interest Group program was modeled after a similar program at the University of Oregon established in 1981 (Gabelnick, MacGregor, Matthews, & Smith, 1990). FIGs are groups of 20 first-year students who register for the same three classes and take them at the same times. The program at the University of Washington began in 1987 with four FIGs, and has grown in size every year since then (Table 2-1). In the Fall of 1991, students were registered in 40 FIGs, which meant that approximately one-quarter of students new to the University were in FIGs. FIGs were offered only during the Fall quarter.

One professional staff member, Ken Tokuno, was responsible for the administration and coordination of the FIG program. The FIG program was only one of the many programs for which he was responsible in his position as Director of Special Undergraduate Programs. The program operated under the auspices of the College of Arts and Sciences. A graduate assistant served as the FIG Coordinator, and reported to Ken Tokuno. It was the FIG Coordinator who directly recruited, selected, trained and supervised the Peer Advisors.

TABLE 2-1

GROWTH OF FRESHMAN INTEREST GROUPS

YEAR	NUMBER OF SECTIONS	ENROLLMENT
1987	4	100
1988	10	200
1989	20	435
1990	32	645
1991	40	857

The courses that made up each FIG were chosen to reflect a general theme ("Interest"), and the FIG was titled accordingly. It should be noted, however, that even though FIGs had names, students rarely called them by name. Instead, students referred to their FIGs as "the FIG". Of the three courses taken by FIG members, two were large lecture courses ranging in size from 100-700 students. Once a week the large class would separate into quiz sections, groups of 20-25 students led by a Teaching Assistant (TA). In quiz sections the TA would answer questions or provide her or his interpretation of the professor's lecture.[1] FIG groups were registered so that the members of the FIG became members of the same quiz section.

The third course that made up each FIG was either a composition or a writing link course. These courses differed in their approaches to writing papers, and according to whether or not they linked the information students were writing about with the material from one of the other courses in the FIG. Students who were enrolled in a composition course were in a Non-Writing Link FIG; students who were enrolled in a writing link course were in a Writing Link FIG. Examples of each are given below.

---

[1]. The name "quiz section" is misleading, since students did not always take quizzes in them.

Non-Writing Link FIGs

The FIG called "Speech and Drama" registered students in Introduction to the Theater, Oral Interpretation of Literature, and Composition. The first two were large classes composed of more than the 20 FIG members, the latter was composed of only the 20 FIG members. Although the FIG had a title and a theme, the courses were not coordinated. That is to say, there was no overlap in assignments, reading, or content.

Writing-Link FIGs

The FIG called "Introduction to the Ancient World" registered students in Survey of Ancient Western Art, The Ancient World (an introductory history course), and Humanities Writing. Again, the first two courses were large classes composed of more than the 20 FIG members, and the latter was composed of only the 20 FIG members. However, students wrote papers in their writing class based on information and texts used in their Survey of Ancient Western Art course and therefore experienced some overlap in topics. Writing Link FIGs also used a peer review writing process in their writing course. In small groups, students read the writing of their peers and provided written and verbal feedback to the authors. The instructors were available for questions, but were not the focus of attention. The peer review process encouraged collaboration among students and between students and faculty on writing projects.

Because we were interested in collaborative learning programs that had the greatest potential to influence student learning, the qualitative portion of the study looked at only the Writing Link FIGs. We refer to "Writing Link FIGs" and "FIGs" interchangeably in this report; however, the qualitative study pertains only to Writing Link FIGs.

In addition to courses, all FIGs included a weekly meeting for one hour with an undergraduate, upperclass Peer Advisor. Peer Advisors applied and were interviewed for the job during the prior Winter quarter. In the Spring quarter, they took part in a two-credit training course, taught by the FIG Coordinator. In addition, they returned to campus three days before the new students arrived in the Fall, for last minute training and preparation. Throughout the Fall quarter, the Peer Advisors met with the FIG Coordinator on a weekly basis for supervision.

The Peer Advisor's job was to answer questions about a variety of topics: What's this teacher like? How do we use the library? What is there to do on campus that's fun? How do you use the bus system? The idea of the weekly FIG meetings was for Peer Advisors to give the

students some skills for university survival and to continue to orient them to the campus and community after the initial orientation weekend was over.

The weekly FIG meeting was a one credit course graded on a credit/no credit basis, based on mandatory attendance. Each FIG Peer Advisor développed a syllabus and distributed it at the first meeting. In addition to attending the weekly meetings, students were required to attend one "cultural event" as a group. One group went to a play presented by the Drama Department on campus, another went to a movie off-campus. Students were also required to complete some sort of project, as assigned by the Peer Advisor. Again, these varied by group; one assignment was to create a collage that represented their first-quarter experiences at the University and write a one-page essay to imaginary grandchildren telling them about their experiences. Another assignment required students to attend a meeting of a student organization or group and write a report about it. Still another assignment required students to meet with an academic advisor in their major and develop a plan of course registration for the next two years. The intent of the required cultural event and assignment was to get students familiar with more of the campus and community than they ordinarily might during their first quarter at the University.

The format of the FIG meeting varied from week to week and from FIG to FIG. One group visited a museum on campus one week, while another listened to their Peer Advisor talk about study skills tips. A third group shared in a discussion of what cultural event they wanted to attend during the quarter; they interspersed this conversation with talk of television shows watched and sports played. A fourth FIG listened to their Peer Advisor tell them about various resources available on campus--libraries, the health center, the bus system, computer facilities, etc. It should be emphasized, however, that the FIG meeting was only one hour per week above and beyond the courses in which the students were enrolled. Therefore, the influence of the time students spent together with a Peer Advisor was limited necessarily by the constraints of time.

To summarize, these 20 students spent six hours a week together as a distinct group (four hours in writing class, one hour each in quiz section and FIG meeting.) FIG students also spent 8-10 hours a week in classes with many other students. In these larger classes, the FIG was not a visible group. When the students attended their other classes they did not sit together as an entire FIG group, although some members of a FIG did sit together in groups of two or three. Students also reported that they spent time together between classes if they had a break; they would go to a snack bar on campus to relax, study, and talk.

PART THREE

RESEARCH METHODOLOGY

RESEARCH RATIONALE

To understand the impact of collaborative learning programs on student learning and persistence, a research design was constructed that was both longitudinal and multi-method in nature.

The longitudinal character of the research design reflected two different needs. First it reflected our need to ascertain how participation in a freshman interest group in the first quarter of college influenced, over time, the learning behaviors and subsequent learning and persistence of program students. Second, it mirrored our desire to understand, as best we could, the full extent of students' first-year experiences and the nature of the program in which they were enrolled. For these reasons we visited each site at least four times over the course of our work and collected data at several different times during the academic year--at the outset of the program, at two other times during the academic year, and at the start of the second year of college.

The multi-method character of the study, specifically its use of both quantitative survey and qualitative analyses, arose out of the need to not only describe and track the behaviors and outcomes of large numbers of program and non-program students, but also to understand in detail the complex ways in which program participation shaped student views of learning. While longitudinal survey analyses could respond to the former need, it is not well suited as a response to the latter need. For that purpose, we employed qualitative analyses, specifically participant observation and interviewing, over the course of the first academic year. As will become apparent in the following pages, both methods provided important insight into "program effects" that no one method could provide on its own.

It should also be noted that our reliance on multiple research methods reflects our belief as researchers that the complementary use of multiple methods, specifically quantitative and qualitative, yields insight into program impact that is greater than the sum of the data yielded by the separate parts.

LONGITUDINAL PANEL STUDY METHODOLOGY

The quantitative portion of the research project at The University of Washington, Seattle consisted of a longitudinal panel survey of first-year students. It tracked the behaviors, experiences, and outcomes for program and non-program students over the course of their first year at the University.

Sampling

The longitudinal survey component involved the administration of two survey questionnaires to a sample of first-year students who participated in the Freshman Interest Group Program and a comparison group of first-year students who did not enroll in that program. In both cases, the selection of students was driven by the prior selection of Freshman Interest Groups and comparison classrooms. These were selected to meet two major criteria. First the selected groups had to capture a broad spectrum of students while also reflecting the broad range of Freshman Interest Groups. Second, the selected groups had to span the dates at which the FIGs were filled, from those which filled early to those which filled at the very end of registration. The reason for the latter criterion was that it enabled us to at least partially "control" for possible self-selection artifacts. Whereas it may be possible to argue that the early filling FIGs attracted the most motivated students and therefore those who are most likely to do well in college, this is typically not the case with the late filling FIGs that are commonly taken by students who have no other option left at their disposal.

A total of 21 out of 40 Freshman Interest Groups were selected for the study. Listed in Table 3-1, these covered a range of majors and included both writing link and non-writing link FIGs. All students in the selected FIGS were included in the sampling frame. This yielded a potential sample of 442 program students.

TABLE 3-1

SELECTED FRESHMAN INTEREST GROUPS

Freshman Interest Group	Date Filled	Sample Size*
Spectrum of Behavior (WL)	July 31	18
Ancient World (WL)	August 5	18
Western Civilization (WL)	August 5	12
Individual and Society (WL)	July 31	18
Global Environment (WL)	August 5	19
Political Communication and Society (WL)	July 17	19
Deviance and Society (WL)	July 17	13
Pre-Engineering A	July 10	19
Pre-Engineering B	July 25	21
Pre-Engineering C	July 25	20
Pre-Engineering-Open English	August 19	18
Pre-Engineering-Open Calculus	July 31	7
Pre-Engineering-Adv.Calculus	August 12	22
Pre-Health - Science	July 31	22
Pre-Science A	August 19	19
Pre-Science B	August 19	22
Pre-Science - Language	August 19	20
Pre-Science-Pre-Chemistry(WL)	August 12	17
Pre-Business Adm. - C (WL)	July 25	19
Pre-Business Adm.- E	July 17	22
EOP	July 17	9

Where WL = Writing Link class.

* = numbers returning first questionnaire.

The comparison group students were drawn from two large freshman lecture classes, sociology and chemistry. All students in those two classes who were not already members of a FIG were selected for inclusion in the study. The selection of those two classes was based not only on their providing a ready sample of students, but also on the fact that they typically enrolled a very large "representative" spectrum of first-year students at the University. Enrollment in each of those classes was 708 and 1110 respectively.

For the purposes of this study, we took beginning college students as representing those persons who enrolled in the specific institution in question for the first time, regardless of prior enrollment. Nevertheless, because students with no prior experience may be different in some fundamental way from students who have prior higher educational experience, we obtained data that would allow us to distinguish between these two groups of "beginning college students."

Questionnaire Development

Two survey questionnaires were developed. One to be administered at the start of the first year, another to be given near the end of the first year of college. Each was the end product of a lengthy process of conceptual analysis, item construction, and pilot-testing that involved both students and staff at the each of the participating institutions. The initial drafts of the survey questionnaires, were the result of a conceptual analysis designed to answer the question of what sorts of information we needed to achieve the goals of the study. In some cases that led us to draw upon items from existing questionnaires (e.g., Pace's Quality of Student Effort Scales) and, in other cases, to develop new items for the surveys. The resulting draft versions were then circulated to program faculty and staff for their review. Their comments led us to produce a second draft of each questionnaire that was, in turn, pilot-tested with a number of students at each institution. The outcome of that pilot-testing led to the construction of final versions of the questionnaire which were then produced separately for the program and comparison group students (see Appendix A for copies of survey questionnaires).

Measures of student engagement in classroom and out-of-classroom behaviors were derived from Pace's Quality of Student Effort Scales. Rather than being adopted in its entirety, Pace's items were modified to suit the specific context of the institution and program being studied. While ruling out comparisons with prior research, the modifications allowed us to better capture both the intent and impact of program participation upon student behaviors.

Data were also acquired from institutional records. Specifically, data were obtained on student's academic year record (grade point average, credits earned, and courses taken) and subsequent enrollment in the following academic year. These data, together with measures of classroom and out-of-classroom learning behaviors and students' self-evaluation of gain, formed the outcome variable set.

It must be noted that the development of the questionnaires was in part driven by an underlying conceptual framework that informed our research and that of the Center generally, namely the importance of involvement in learning to both student learning and persistence. This framework, first described by Tinto (1987), argues that student involvement in learning, in this instance via collaborative learning programs, leads students to become more involved in their own learning and therefore expend greater quality of effort on behalf of their learning. That "intermediate outcome" leads, in turn, to greater student learning and persistence.

Data Collection

The questionnaires were administered at two different times during the course of the first year. The first questionnaire was administered during the second week of the Fall quarter by the FIG leaders and by the two classroom faculty during class time. Of a total possible enrolled sample of 442 program and 1868 comparison students, we obtained a total of 374 (84.6 percent), 164 (21.6), and 163 (14.7) usable questionnaires from the program, sociology, and chemistry classrooms respectively for a total sample of 701 beginning students.

The second, follow-up questionnaire, was administered during April of the spring quarter. The names and addresses of respondents from the first questionnaire who were still enrolled at the University were obtained from institutional records and copies of the follow-up questionnaire together with a cover letter from the Vice President for Undergraduate Studies, was sent to each person via mail. A total of 676 questionnaires were sent to persons for whom addresses could be located. To increase response rates, all students who returned their questionnaires became eligible for a random drawing for a gift certificate, valued at $200, redeemable at The University of Washington Bookstore. To further increase response rates, a second-wave was sent to all students who had not responded to the first questionnaire. Those techniques yielded 255 (68.2 percent) program students and 193 (59.1 percent) comparison group students for a total usable sample of 448 questionnaires or a response rate of 63.9 percent.

Finally, at the beginning of the following Fall quarter of the 1992-93 academic year, data were obtained from institutional files on freshman-year grade point average, credits earned, and enrollment in the second year. These data became part of the outcome data set.

- The final panel utilized in the study consisted of only those persons who had responded to both questionnaires. All analyses were carried out on that panel of students.

Data Analysis

Several forms of quantitative analysis were carried out. First, descriptive statistics were employed to describe and compare the attributes, experiences, and outcomes of students in the program and comparison panels. Second, discriminant and regression analyses were used to ascertain for program students how attributes and experiences were related, over time, to behaviors and, in turn, to outcomes over the course of the year. Since persistence was measured by a simple dichotomous variable, we used logit regression analysis in the study of persistence into the second year. In both cases stepwise procedures were employed with variables added to the analysis according to a conceptual ordering system that places variables in order of their time occurrence.

QUALITATIVE CASE STUDY METHODOLOGY

The Research Question

This study began with the assumption that Freshman Interest Groups (FIGs) are an effective way to respond to the academic needs of beginning college students. The rationale for such an assumption was outlined by Bogdan and Taylor (1990) when they wrote about investigating positive or optimistic approaches to program implementation. Their rationale was that the question "does a program work?" did little to help practitioners understand how they could implement a similar program and "function[ed] as an exclusionary gatekeeper rather than as an encouraging teacher" (p. 186).

Beginning with the assumption that a program such as FIGs works, we could then go on to ask questions like how do FIGs work? what do people do in FIGs? and what do FIGs look like? In so doing, we were able to understand, from the students' point of view, how participation in a FIG influenced students' learning experiences and how those learning experiences fit in with their broader experiences as first-year students.

Site Selection

The state in which the institution is located has been a leader in implementing collaborative learning strategies in higher education. Thus, in keeping with our assumption, the collaborative learning project of the National Center on Postsecondary Teaching, Learning, and Assessment (NCTLA) was conducted at the University of Washington, a large research university. This type of institution enrolls a majority of students across the United States and as such was desirable for inclusion in a multi-institution study funded by a national research center. Furthermore, the program is neither new nor marginal to the institution. Freshman Interest Groups have been in place at the University of Washington since 1987, and each year more students choose to be in one (Tokuno & Campbell, 1990). At the same time, since the FIGs are no longer new, we expected that this would help prevent the data from being influenced by the effects of a new program.

Furthermore because institutions throughout the state of Washington have used various forms of collaborative learning, there was an active network of professionals. Therefore many professors and students were somewhat familiar with collaborative learning strategies, and might have been predisposed to regard them as positive experiences.

FIG Selection

Forty Freshman Interest Groups were formed in the Fall Quarter of 1991. Each group consisted of between 20 and 25 first-year students and one upperclass facilitator. Students enrolled together in three courses. For example, students interested in engineering were encouraged to enroll in calculus, chemistry, and English. Of the 40 FIGs, nine involved students who were registered in linked content and writing courses (Writing Link FIGs). The design of the Writing Link FIGs was such that the writing class was linked to one of the content classes that the students were taking. For example, students in one FIG were taking anthropology, art history, and writing. The syllabus of the writing class was linked to that of the anthropology class such that they shared a text, and the writing assignments for the writing class were also submitted as assignments for the anthropology class. Hence, deliberate associations were being made between two of the classes that students were taking. This involved a commitment on the part of the Writing Link instructor and the anthropology professor to communicate, although the extent of communication varied.

The research team choose to focus this part of the study on those FIG groups that were more likely to use collaborative learning strategies and therefore assumed to have a greater impact upon the students. It was our intent to understand how the program, at its most powerful, shaped student behavior. Thus we decided to focus on the Writing Link FIGs rather than on a "representative" sample of those groups.

Having decided to focus on the Writing Link FIGs, we continued the process of purposeful sampling to determine which FIGs had the best chances of involving the students in their courses. We interviewed the coordinator of the FIG program and spoke with the Peer Advisors of each of the nine Writing Link FIGs. Based on our observations of the Peer Advisors in their meetings and in their interactions with the other Peer Advisors, and our observations of the Writing Link courses and the FIG meetings, we selected three groups on which to concentrate.

Participant Selection

The demographics of the three FIGs were similar to the other Writing Link FIGs in terms of numbers of women and men, age of the students, and race. Our objective in choosing students to interview was to talk to individuals from a variety of backgrounds. When we selected students as key informants, we intentionally approached students who represented that variety. Who we interviewed was also influenced by accessibility, not only accessibility in the classroom but around the campus as well. Because of the enormous size of the University of Washington, we talked with as many students as we could--walking with them between classes, waiting for an instructor or Peer Advisor to arrive, or in some cases during a class activity.

Data Collection

We visited the site for three one-week periods in the 1991-92 academic year. The first site visit took place during the second week of the 1991 Fall quarter. It allowed us to become familiar with the University as a whole. In addition, we were able to see how the FIGs were functioning at an early stage. The second site visit took place during the last week of the 1991 Fall quarter; the FIGs were ending and the students were able to tell us about their experiences during the quarter. We made the third site visit during the middle of the 1992 Spring quarter. At that time students were able to reflect upon experiences with and without the FIG.

Data collection consisted of participant observation, interviews, and document review. Participant observation was conducted in classes, FIG groups, and Peer Advisor meetings; in a residence hall and a sorority; and on campus and the surrounding community -- we stayed four blocks from campus and walked onto campus each day. Interviews consisted of informal conversations with students, faculty, and staff; scheduled open-ended interviews with students and staff; informal telephone interviews with key informants; and scheduled interviews with students which followed an informal protocol. Document review consisted of gathering and/or reviewing and making note of documents about the University of Washington such as the student newspaper, student directory, admissions information that was sent to prospective students, course syllabi, and course schedules.

Data Analysis

Data analysis was conducted in an on-going process which enabled us to explore themes as they emerged and to pursue unexpected leads during the second and third site visits. We analyzed the data by reading and rereading the fieldnotes and interview transcripts to familiarize ourselves with them, assigning codes to portions of the data, identifying emerging themes in the data, and generating hypotheses based on these themes. This process of incorporating emerging themes from the data with hypotheses we constructed during the study is characteristic of inductive analysis used in qualitative research (Bogdan & Biklen, 1992). The strength of inductive analysis is that it facilitates the "grounding" of new models or theories ("grounded theory", Glaser & Strauss, 1967). As noted previously, there has been sparing use of qualitative research in higher education, and its use has been encouraged by researchers (Crowson, 1987; Kuh & Andreas, 1991; Kuh, Bean, Bradley, Coomes, & Hunter, 1986). To make the mechanical aspects of data analysis more manageable (sorting and retrieving the coded data), the Syracuse University mainframe computer package QUALOG was used (Shelly and Sibert, 1987).

Procedures

Three one-week site visits were made. The first visit took place during the second week of the 1991 Fall quarter, the second during the last week of the 1991 Fall quarter, and the third during the middle of the 1992 Spring quarter. Data collection consisted of participant observation in 12 classrooms, 43 interviews with 24 students, five interviews with the Director of Special Undergraduate Programs and the FIG coordinator, and contact with five Writing Link instructors. The students interviewed were nine female and 10 male first-year students, and four female and one male upperclass FIG Peer Advisors. All interviews and classroom observations were carried out by Anne Goodsell.

First Site Visit: Preparation for the first site visit included getting information about Freshman Interest Groups (the flyer that was sent to new students), getting schedules of when classes and FIG meetings were held, contacting the administrators of the FIG program by letter and telephone, getting class lists of student names, and obtaining permission from instructors and Peer Advisors to attend the Writing Link classes and FIG meetings, respectively.

The first site visit began with a meeting of the administrators and staff responsible for the FIGs (Fred Campbell, Dean of the College of Arts and Sciences; Ken Tokuno, Director of Special Undergraduate Programs; Jennifer MacLennan, FIG Coordinator; and Susan Rhoades, a graduate student hired to assist with the research) and two researchers from the NCTLA (Dr. Vincent Tinto and Anne Goodsell). The purpose of the meeting was to meet each other, make clear our intentions and methods for research, and smooth the way for data collection to begin.

Anne Goodsell attended four Peer Advisor meetings, which were held weekly and run by Jennifer MacLennan, the FIG Coordinator. The purpose of the meetings was for Peer Advisors to share experiences with coordinating the FIG groups, solve problems about issues that surfaced in their FIG meetings during the past week, and for Jennifer to provide direction for future FIG topics and disseminate information. Jennifer introduced Anne to the Peer Advisors during these meetings, she talked with those who were advisors to Writing Link FIGs and arranged with four of them to observe their FIG meetings that week.

To select the Writing Link FIGs on which to focus, Anne talked with each of the Peer Advisors after the Peer Advisor meetings, and found out when and where their FIG met. We also considered their conversations and interactions in the Peer Advisor meetings, Jennifer's recommendations, and Anne's conversations with them. We chose to observe the FIGs of those Peer Advisors who were articulate, seemed to be at ease, reported positive interactions during their first two FIG meetings, and who were open to Anne's request to observe their meeting that week.

During the first site visit Anne also observed 5 Writing Link classes. She introduced herself to students at these classes, saying that she was a graduate student from Syracuse University working with the NCTLA on a study of learning experiences of first-year students. At one class Anne was able to have a discussion with the class for 20 minutes about their initial impressions of the University, classes, and the FIGs. At another class the instructor gave her time in class to ask the students to write about two questions that she gave them: 1) why did you join a FIG, and 2) describe an experience you've had so far at the University. Anne also discussed the questions with the group. She collected the written answers and included them as

part of the data; the verbal answers were dictated as fieldnotes. From the discussions Anne was able to discover a number of things which helped her target students to talk to later: which students were willing to speak up, their reasons for joining a FIG, and where they lived (on or off-campus, in or out-of-state). Anne wanted to interview students from a variety of backgrounds and with a variety of experiences, so as she spoke to students later she tried to find students who fit the various profiles: gender, race, and living situation.

On the last day of the first site visit, Anne attended four FIG meetings. This was the second time that the students had seen her, as she had attended the Writing Link classes. After the meetings she asked six students if she could call them during the quarter to find out what they were doing in classes and in the FIG. Initially we chose these key informants based on how articulate they had been in the Writing Link classes and the FIG meetings, and if Anne had been able to establish any rapport with them during the week. For instance, when Anne was touring a museum exhibit with one FIG, she asked a student with whom she had talked earlier if she could call him throughout the quarter. Then three students standing nearby overheard their conversation and volunteered. One of the volunteers had been quiet during the classes she had observed, but turned out to be a reliable and willing informant. By this process, we selected both women and men, and some who lived in dorms[2], commuted, or lived in Greek houses.

The purpose of contacting key informants by phone was to collect more information between site visits. It allowed us to keep in touch with what was going on during the Fall quarter and get a better feel for the context of the FIGs in the rest of the students' experience. It also allowed us to get acquainted with a small group of students, and build rapport for interviewing during the second site visit.

Between Visits: Between the first and second site visits, Anne Goodsell conducted telephone interviews with the key informants. If she called and got an answering machine, she left a message saying that she had called and would call back another day. Anne spoke with five of the six students a total of eight times. After each call she dictated notes of the interview. Anne was unable to reach one of the students because she was on an athletic team which

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[2] To student affairs professionals, my use of the word "dorm" may seem incorrect. I chose to use it rather than "residence hall" precisely because "residence hall" has an administrative ring to it that I did not want to convey. I felt that it was important to use the words that the students were using, and that is the word they used. In addition, Kuh et al. (1991) point out that for students, the word dorm may be a "term of endearment" that conveys a warm, friendly, comfortable atmosphere.

practiced early in the mornings and in the afternoons. By the time she returned to her sorority house in the evenings, it was late at night on the East coast.

Prior to the second site visit we sent a list of students we wanted to interview to Susan Rhoades, the graduate student at the University working with Ken Tokuno and assisting the research team. We compiled the list from the class lists and from Anne's fieldnotes of the first visit, trying to interview women and men; students who commuted, lived in dorms, and lived in Greek houses; students of color; and students who had seemed enthusiastic and not-so-enthusiastic about the FIGs. Susan contacted the students by phone, arranged for interview times and a place, and sent reminder postcards to students a few days before my visit.

Second Site Visit: The second site visit occurred during the last week of the 1991 Fall quarter, one week before final exams. Most of our time was spent interviewing 15 students (six women and nine men) and four FIG Peer Advisors (women). Between interviews Anne engaged in participant observation, although she was unable to observe any Writing Link classes because the students were having individual conferences with the instructors that week. Interviews were an hour long and held in the office of the FIG coordinator, located in an academic building. It was not an office that the students had been to before. Although the office was a somewhat sterile environment which yielding few clues as to what the student living area looked like, it did provide a space where they could be undisturbed. Meeting in an office provided a measure of confidentiality, and the possibility of students posing in front of their peers was limited. It was also an efficient use of our time because Anne did not have to spend up to 15 minutes walking across campus between interviews.

When possible Anne audio taped each interview. When that was not possible (due to background noise, etc.) she dictated notes as soon after the interview as possible. Anne asked each student for consent to tape the interview, and told them that the information would be used in a research report but that they would not be identified individually in any way.

As Anne talked with students she asked them about what they did during their days and nights, during their classes and their FIG meetings, and during their weekends. The purpose of asking about the out-of-class experiences of students (their "everyday" experiences) was to hear how they placed the FIG experience in the broader context of their university experience (Smith, 1987). Although the FIG experience was central to our research, it might not have been central to their experience, and we wanted to know about the context in which FIGs operated.

Anne also asked students to tell her about other students in the group--who they thought

were benefiting from it and who were not--and she used these names to expand our list of interviewees. By using this method of snowball sampling Anne was able to contact students whom she had not made a note of during my first site visit. For example, one woman told her about a male commuter student for whom academics came first. Consequently Anne contacted and interviewed him. There was no structured interview protocol for this visit; questions were exploratory and open-ended. We developed an outline of questions to use as a guide (see Appendix C).

Additional data collection during the second site visit consisted of observing three FIG meetings (FIGs Anne had observed during the first visit) and going to dinner at a sorority house with a FIG student. At the sorority Anne interviewed another female student who was in a non-Writing Link FIG, as well as a first-year female who was not in any FIG. Other data collection activities conducted during the site visits included dictating fieldnotes; reviewing documents; and observing students in the student union, walking between classes, and in the dorms.

Between the second and third site visits analysis proceeded as interview transcripts were completed. The research team met weekly to discuss emerging themes, challenge each other's thinking, and refine our analyses. Documents were reviewed and analytic memos written. The interview transcripts and the themes that were emerging were used to create a more structured outline of questions for the third site visit than was used for the second visit (see Appendix C for third site visit questions). One phone interview was conducted. Prior to the third visit we contacted Nancy with a list of students to interview. She set up an interview schedule in a similar manner to the second site visit.

Third Site Visit: Data collection during the third site visit consisted of twelve formal hour-long interviews with three women and six men and six informal interviews with four women and one man. Formal interviews were held in the same office as the second site visit and were audio taped. Susan Rhoades and Anne had attempted to get a few students together for a group interview, but were unable to do so because of schedule conflicts. Anne interviewed Ken Tokuno, and Jennifer MacLennan during the third visit.

Analysis

During the site visits the research team met daily to debrief and discuss the events of the day, ask questions of each other, and document what had occurred. Team members also discussed ideas or questions to follow up on, checked the assumptions and biases under which

each of us were operating, and encouraged further investigation into areas of interest. These on-site team meetings were important for the coordination of the research across the two sites (necessary for the NCTLA), adding detail to the accounts in our fieldnotes, and keeping our energy and enthusiasm levels high. Team members spurred each other on to continue to probe, dig deep, and look beneath the surface of what we were seeing and hearing.

Between site visits the research team met weekly to continue sifting through data and examine themes or working hypotheses that emerged. As the audio tapes of the interviews were returned from the transcribers (three transcribers were used over the course of this study), the transcripts were reviewed and prepared for uploading onto the Syracuse University mainframe computer. The Syracuse University mainframe computer package QUALOG (Shelly & Sibert, 1987) was used to assist with the data analysis. It allowed us to input our data files (notes, transcripts, and documents), input memos, code the material, and sort the material along any number of dimensions. It also kept a separate file of the steps used in analysis. Keeping this information separate from the data files allowed us to backtrack and re-examine the analysis process, and gain a better understanding of the thought processes used in analysis.

To continue analysis, drafts of two of the 'results' sections were sent to four students who had been interviewed repeatedly and expressed a willingness to read them. Enclosed with the sections was a cover letter asking them if what was written sounded like what they had told Anne and what their experience had been like during their first year. One student responded. This feedback allowed us to continue to refine our analysis, making sure that what we were writing was what the students had been saying.

Methodology: Summary

The advantages of using a qualitative method to conduct this study were that it allowed us to gain an understanding of the FIGs that was grounded in the broader context of the students' university experience. The method allowed us to ask a wide range of questions, then focus on more specific areas as we discovered what was important to the students. The on-site observations were instrumental in this aspect as well; We were able to ask questions based on what we saw and try to verify what students were telling us based on their actions.

There were also constraints in carrying out this study. In terms of participant selection, we attempted to select FIGs and participants from all minority groups represented at the University of Washington (African-American, Asian-American, Hispanic, or Native American). The FIG that was recommended to us (by Ken Tokuno) as having a higher percentage of

minority students was a FIG for HEOP students and not a Writing Link FIG. There were no FIGs targeted exclusively for minorities. Anne interviewed the two Black students in the three FIGs she observed; they were African nationals, and because they were international students we chose not to include their data in our analysis. We also did not include the data from an interview Anne had with a Japanese student.

Other constraints mentioned previously included the large size of the campus which made bumping into students on campus unlikely, the differences in time zones which constrained the hours Anne could call the key informants, and limitations on funding which influenced the number site visits and their duration.

PART FOUR

QUANTITATIVE FINDINGS: A LONGITUDINAL STUDY OF STUDENT BEHAVIOR

Descriptive Statistics

The first questions we sought to answer were those of description and comparison. We wanted to know who participates in the FIGs and how their experience during the first year of college differed from that of beginning students who did not participate in the FIGs during their first quarter at the University. At the same time, we wanted to know whether student experience differed as a function of type of FIG (Writing Link) and place of residence during the first year (on-campus verses off-campus). To answer those questions, we employed three types of descriptive statistics. First frequencies, means, and standard deviations were run on all variables by group, that is to say for Freshman Interest Groups and the two comparison classes, sociology and chemistry. Second, for FIG students only, frequencies, means, and standard deviations were run on all learning behavior, gain, and outcome variables by type of FIG (writing link or non-writing link) and residence, specifically off-campus, on-campus dormitory, and on-campus fraternity or sorority. T-tests and ANOVA were used to test the significance of group differences.

Attributes of FIG and Comparison Class Students:[1]

Looking first at information taken in the Fall survey it is apparent that students in the FIGS are overwhelmingly young, single, and from largely college educated families (Tables 4-1 to 4-3). Over ninety-nine percent of FIG students were nineteen years of age or younger, unmarried, and recent graduates of high school. At the same time, the great majority come from college educated families. Only about 37 percent of FIG respondents indicated that their fathers, for instance, had less than a bachelor's degree.

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[1]. Please see Appendix B for a complete listing of tables detailing the data taken from the Fall and Spring Survey Questionnaires.

TABLE 4-1

AGE DISTRIBUTION AMONG FRESHMAN INTEREST GROUPS AND COMPARISON CLASSES

(percentages with numbers in parentheses)

AGE	FIG	SOCIOLOGY	CHEMISTRY
18 or under	89.4 (228)	86.2 (75)	86.8 (92)
19	9.8 (25)	11.5 (10)	9.4 (10)
20	*	1.1 (1)	0.9 (1)
21	0.4 (1)	1.1 (1)	*
22 to 24	0.4 (1)	*	*
25 to 29	*	*	*
over 30	*	*	2.8 (3)

where * indicates empty cell

TABLE 4-2

MARITAL STATUS OF FRESHMAN INTEREST GROUPS AND COMPARISON CLASSES

(percentages with numbers in parenthesis)

MARITAL STATUS	FIG	SOCIOLOGY	CHEMISTRY
Unmarried	99.6 (254)	100.0 (87)	98.1 (104)
Married	*	*	1.9 (2)
Separated or Divorced	0.4 (1)	*	*

where * indicates empty cell

TABLE 4-3

FATHER'S LEVEL OF EDUCATION FOR FRESHMAN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

FATHER'S EDUCATION	FIG	SOCIOLOGY	CHEMISTRY
Grammar school or less	0.8 (2)	2.4 (2)	2.9 (3)
Some high school	1.2 (3)	2.4 (2)	*
High school graduate	10.0 (25)	14.3 (12)	11.5 (12)
Post secondary other than college	4.0 (10)	2.4 (2)	6.7 (7)
Some College	18.8 (47)	11.9 (10)	16.3 (17)
College Degree	35.2 (88)	33.3 (28)	30.7 (32)
Some Graduate School	5.6 (14)	6.0 (5)	1.9 (2)
Graduate School	17.6 (44)	16.7 (14)	22.1 (23)
Professional (Law, Medicine, etc.)	6.8 (17)	10.7 (9)	7.7 (8)

where * indicates empty cell

TABLE 4-3(continued)

MOTHER'S LEVEL OF EDUCATION OF FRESHMAN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

MOTHER'S EDUCATION	FIG	SOCIOLOGY	CHEMISTRY
Grammar school or less	1.6 (4)	3.4 (3)	2.9 (3)
Some high school	3.2 (8)	2.3 (2)	1.9 (2)
High school graduate	13.7 (34)	16.1 (14)	20.2 (21)
Post secondary other than college	6.8 (17)	9.2 (8)	5.8 (6)
Some College	27.3 (68)	23.0 (20)	18.2 (19)
College Degree	30.1 (75)	25.3 (22)	31.7 (33)
Some Graduate School	6.4 (16)	1.2 (1)	9.6 (10)
Graduate School	9.2 (23)	14.9 (13)	9.6 (10)
Professional (Law, Medicine)	1.6 (4)	4.6 (4)	*

where * indicates empty cell

Almost all panel members had attended high schools prior to enrolling at the University (Table 4-4) where a majority of them had been in college preparatory courses (Table 4-5). Interestingly, FIG students fall in the middle (81.3 percent) between students in the Chemistry class (90.5 percent) and students in the Sociology class (68.2 percent).

TABLE 4-4

TYPE OF SCHOOL ATTENDED PRIOR TO COLLEGE BY FRESHMAN INTEREST GROUPS AND COMPARISON CLASSES

(percentages with numbers in parenthesis)

SCHOOL TYPE	FIG	SOCIOLOGY	CHEMISTRY
High School	99.6 (252)	97.7 (85)	94.3 (99)
Technical/Vocational	*	*	*
Two-year college	*	1.2 (1)	1.9 (2)
Four-year college	0.4 (1)	1.2 (1)	1.9 (2)
Other	*	*	1.9 (2)

where * indicates empty cell

TABLE 4-5

PROGRAM OF STUDY DURING HIGH SCHOOL FOR FRESHMAN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

PROGRAM OF STUDY	FIG	SOCIOLOGY	CHEMISTRY
College Preparatory	81.3 (205)	68.2 (58)	90.5 (95)
Business	3.6 (9)	4.7 (4)	*
Vocational	*	2.3 (2)	*
General or Other	15.1 (38)	24.7 (21)	9.5 (10)

where * indicates empty cell

Consistent with their family background, all students, FIG as well as others, planned on at least a college degree (Table 4-6) and saw graduation from college as important and/or very important (Table 4-7). Interestingly, they reported themselves as highly committed to graduating from the University of Washington. Nearly 90 percent indicated that graduating from the university was important or very important (Table B-8). This figure, as we shall see, mirrors their subsequent behaviors.

Finally, it is apparent that students who enroll in the FIGs come to the University of Washington with higher SAT scores than do students in the comparison classes (Table 4-8). FIG students enter with an average total SAT score of 1045.4 while those in the sociology and chemistry class enter with average scores of 916.4 and 1003.4 respectively. Interestingly, this is true for both verbal and math scores even when compared to students in the Chemistry class.

TABLE 4-6

HIGHEST DEGREE INTENDED BY FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

HIGHEST DEGREE INTENDED	FIG	SOCIOLOGY	CHEMISTRY
None	*	*	*
Vocational Certification	*	*	*
Associate (2-year) Degree	*	*	*
Bachelor's Degree (BA,BS,etc.)	23.6 (56)	19.3 (16)	11.5 (12)
Master's Degree (MA,MS,etc.)	43.5 (103)	44.6 (37)	36.5 (38)
Ph.D or Ed.D	16.0 (38)	12.0 (10)	24.0 (25)
M.D.,D.O.,D.D.S. or D.V.M.	13.9 (33)	15.7 (13)	26.9 (28)
J.D. or LL.B. (Law)	2.5 (6)	7.2 (6)	1.0 (1)
Other	0.4 (1)	1.2 (1)	*

where * indicates empty cell

TABLE 4-7

IMPORTANCE OF COMPLETING A COLLEGE DEGREE AMONG FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

COMPLETE DEGREE	FIG	SOCIOLOGY	CHEMISTRY
Very important	85.1 (165)	78.1 (50)	88.3 (68)
Important	13.9 (27)	18.8 (12)	6.5 (5)
Slightly important	1.0 (2)	3.1 (2)	1.3 (1)
Not at all important	*	*	3.9 (3)

where * indicates empty cell

TABLE 4-8

SAT SCORES OF FRESHMAN INTEREST GROUP AND COMPARISON GROUP STUDENTS

(percentages with numbers in parentheses)

GROUP	FIG	SOC	CHEM
SAT Math Score	564.4	490.8	546.0
SAT Verbal Score	481.0	425.6	457.4
Total SAT Score	1045.4	916.4	1003.4

During their first year, slightly over three-quarters, or 78.7 percent, of FIG students lived on campus, the largest portion (60.4%) of whom lived in dormitories (Table 4-9). Of the three groups, students in the sociology class were the least likely to live in a residence hall (46.0 percent) but most likely to live in a fraternity or sorority house (32.2 percent).

TABLE 4-9

PLACE OF RESIDENCE OF FRESHMAN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

LIVE NOW	FIG	SOCIOLOGY	CHEMISTRY
College Dorm	60.3 (154)	46.0 (40)	55.7 (59)
Fraternity/Sorority House	18.4 (47)	32.2 (28)	11.3 (12)
College Married Student Housing	*	*	1.0 (1)
Off-Campus Room or Apartment	4.3 (11)	2.3 (2)	1.0 (8)
Home of Parents or Relative	15.3 (39)	19.5 (17)	24.5 (26)
Own Home	0.8 (2)	*	*
Other	0.8 (2)	*	*

where * indicates empty cell

While nearly one-quarter, or 22 percent, worked during that year (Table 4-10), most students worked fewer than 20 hours per week (81.7 percent) and did so primarily off-campus (68.5 percent) (Table 4-11 and Tables B-1 to B-3). Not surprisingly about one-quarter (28.6 percent) received financial aid (Table 4-12). Of the three groups, students in the sociology class were most likely to receive aid (32.6 percent).

TABLE 4-10

CURRENT EMPLOYMENT OF FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

EMPLOYED	FIG	SOCIOLOGY	CHEMISTRY
Yes	22.0 (56)	29.9 (26)	19.9 (21)
No	78.0 (199)	70.1 (61)	80.2 (85)

TABLE 4-11

IF EMPLOYED, HOURS WORKED PER WEEK OF FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

HOURS EMPLOYED	FIG	SOCIOLOGY	CHEMISTRY
1 to 10	27.3 (15)	30.8 (8)	28.6 (6)
11 to 20	54.6 (30)	38.5 (10)	62.0 (13)
21 to 30	14.6 (8)	27.0 (7)	9.6 (2)
31 to 40	1.8 (1)	3.9 (1)	*
Over 40	1.8 (1)	*	*

where * indicates empty cell

TABLE 4-12

FINANCIAL AID AMONG FRESHMEN INTEREST GROUP AND COMPARISON GROUP CLASS STUDENTS

(percentages with numbers in parentheses)

FINANCIAL AID	FIG	SOCIOLOGY	CHEMISTRY
Yes	28.6 (72)	32.6 (28)	29.5 (31)
No	71.4 (180)	67.4 (58)	70.5 (74)

Despite their patterns of work, the great majority of students enrolled in a FIG were enrolled full-time, that is for 12 or more hours in the first quarter (87.9 percent) (Table 4-13). Not surprisingly, students in the sociology class were the most likely to be enrolled part-time (42.9 percent) with 27.4 percent being enrolled for 6 hours or less. As noted above, those students were the most likely to be working while in college and to be working for a greater number of hours per week than were other students in the study.

TABLE 4-13

ENROLLED ACADEMIC HOURS AMONG FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS
THIS QUARTER?

(percentages with numbers in parentheses)

ACADEMIC HOURS (THIS QUARTER)	FIG	SOCIOLOGY	CHEMISTRY
6 hours or less	9.7 (24)	27.4 (23)	8.7 (9)
7-12 hours	2.4 (6)	15.5 (13)	6.7 (7)
more than 12 hours	87.9 (218)	57.1 (48)	84.6 (88)

As regards their learning preferences, it is noteworthy that the majority of students, regardless of group, prefer small-group class formats (Table 4-14). Interestingly, though students generally preferred small-group class formats, students in the FIGs did not indicate any greater preference for that format than did other students. Indeed the reverse tended to be the case. This fact is noteworthy if only because of the possibility of self-selection of students into the FIG. Were there any self-selection of students into the FIGs, it is here that one would have expected to observe that students who preferred small-group formats would differentially seek out the FIGs. In a similar fashion, we did not find any significant pattern of differences between FIG and other students in their preferred mode of learning relative to students in sociology and chemistry classes (Table 4-15) or in their perceptions of their preparedness for college work (Table B-19).

TABLE 4-14

TYPE OF CLASS FORMAT PREFERRED BY FRESHMAN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

CLASS FORMAT	FIG	SOCIOLOGY	CHEMISTRY
Lecture Format	11.8 (29)	10.7 (9)	11.3 (12)
Small-group format with discussion	60.1 (148)	72.6 (61)	68.9 (73)
Independent Study with faculty member	5.2 (13)	*	4.7 (5)
Laboratory or Shop Format	2.0 (5)	3.6 (3)	0.9 (1)
Other Format	1.2 (3)	*	0.9 (1)
No Preference	19.5 (48)	13.1 (11)	13.2 (14)

where * indicates empty cell

TABLE 4-15

PREFERRED MODE OF LEARNING OF FRESHMAN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

BEST LEARN	FIG	SOCIOLOGY	CHEMISTRY
Alone	17.1 (41)	16.5 (14)	28.7 (29)
With friends	17.1 (41)	11.8 (10)	17.9 (18)
Being tutored	8.0 (19)	15.3 (13)	11.9 (12)
Tutoring others	3.8 (9)	1.1 (1)	2.0 (2)
Classroom lecture	5.0 (12)	4.8 (4)	*
Classroom discussion	31.8 (76)	41.1 (35)	28.7 (29)
Laboratory or shop	0.4 (1)	1.2 (1)	3.0 (3)
Don't know	16.7 (40)	8.2 (7)	8.0 (8)

where * indicates empty cell

Experiences of FIG and Comparison Class Students

The similarities between students who enrolled in the FIGs and in the comparison sociology and chemistry classes in the Fall continues into the Spring. Along a great variety of items and in the factor scores that tap college activities--namely course learning, library experiences, faculty experiences, writing, personal experiences, student acquaintances, arts, and clubs and organizations--students who participated in FIGs in the Fall quarter were very similar to those who did not (Tables 4-16).

Generally, FIG students tended to fall in between students in the sociology and the chemistry classes. The only areas where this was not the case were those of Arts, Music, and Theater Activities and Clubs and Organizations. In those domains of activities, FIG students scored at least as high as did other students. It is noteworthy that FIG students scored between the sociology and chemistry classes in the domain of student acquaintances where one would have expected FIG students to report at least equal, if not higher, scores than other students. In other areas, specifically in Library and Personal experiences, students in the sociology class reported significantly greater activity on a range of items. FIG students reported more frequent activity on only three items. Interestingly two of those items involved contact with faculty.

TABLE 4-16

FIRST YEAR EXPERIENCES OF FIG AND COMPARISON CLASS STUDENTS

COURSE LEARNING

	FIG	SOC	CHEM
Participated in class discussions	2.52	2.53	2.34
Took detailed notes in class	3.50	3.44	3.47
Made outlines from class notes or readings	2.06	2.29	2.04
Underlined major points in the readings	2.89	2.98	2.91
Summarized major points and information from readings or notes	2.45	2.62	2.55
Worked on paper/project where I had to integrate ideas from various sources	2.62	2.87*	2.32
Did additional readings on topics that were introduced and discussed in class	1.81	1.89	1.86
Thought about practical applications of the material	2.73	2.70	2.90
Studied course materials with other students	2.67	2.58	2.53
Tried to explain the material to another student or friend	2.84	2.82	2.75
Tried to see how different facts and ideas fit together	2.85	2.73	2.85
Considered the accuracy and credibility of information from different sources	2.40	2.41	2.42
Participated in self-assessment activities	2.01	2.09	2.00
COURSE FACTOR SCORE	**2.56**	**2.60**	**2.53**

LIBRARY EXPERIENCES

	FIG	SOC	CHEM
Used the library as a quiet place to read or study material you brought with you	5.75	2.80	2.71
Read something in the reserve book room or reference section	1.66	2.07*	1.52
Checked out books to read (not textbooks)	1.50	1.59	1.45
Used the card catalogue/computer to find materials the library had on a topic	2.20	2.35	2.10
Prepared a bibliography or set of references for a term paper or report	1.80	2.02*	1.60
Asked the librarian for help in finding materials on some topic	1.78	2.16*	1.72
Used indexes (e.g. Readers Guide to Periodical Literature) to journal articles	1.76	1.96*	1.63
Found some interesting material to read just by browsing in the stacks	1.55	1.67	1.71
LIBRARY FACTOR SCORE	**1.88**	**2.08***	**1.81**

EXPERIENCE IN WRITING

	FIG	SOC	CHEM
Used a dictionary or thesaurus to look up the proper meaning of words	2.98	3.11	2.90
Consciously and systematically thought about grammar, sentence structure, paragraphs, word choice and sequence of ideas as you were writing	3.12	3.17	3.07
Wrote a rough draft of a paper or essay and then revised it yourself before handing it in	3.20	3.42	3.11
Spent at least five hours or more writing a paper (not counting time spent in reading or at the library)	3.09	3.09	3.02
Asked other people to read something you write to see if it was clear to them	2.76	2.78	2.59
Referred to a book or manual about style of writing, grammar, etc.	2.04	2.15	1.96
Revised a paper or composition two or more times before you were satisfied with it	2.53	2.69	2.53
Asked an instructor for advice and help to improve your writing	2.51	2.57	2.29
Made an appointment to talk with an instructor who had criticized a paper you had written	2.56*	2.48	2.19
Submitted for publication an article, story, or other composition you had written	1.07	1.20	1.15
WRITING FACTOR SCORE	**2.78**	**2.87**	**2.67**

EXPERIENCES WITH FACULTY

	FIG	SOC	CHEM
Talked with a faculty member	2.23	2.23	2.16
Asked your instructor for information related to a course you were taking grades, make-up work, assignments, etc.)	2.08	2.23	1.99
Made an appointment to meet with a faculty member in his/her office	1.82	1.92	1.71
Visited informally and briefly with an instructor after class	1.92	1.91	1.84
Discussed your career plans and ambitions with a faculty member	1.37	1.48	1.36
Discussed ideas for a term paper/class project with a faculty member	2.02*	1.91	1.78
Asked your instructor for comments and criticisms about your work	2.00	1.98	1.09
Discussed personal problems or concerns with a faculty member	1.12	1.22	1.10
Had coffee, cokes, or snacks with a faculty member	1.10	1.08	1.10
Worked with a faculty member on a research project	1.09	1.08	1.10
FACULTY FACTOR SCORE	**1.67**	**1.70**	**1.59**

STUDENT ACQUAINTANCES

	FIG	SOC	CHEM
Made friends with students I met in my classes	2.58	2.64	2.57
Made friends with students whose academic major field was very different from yours	2.64	2.79	2.60
Made friends with students whose interests were very different from yours	2.51	2.72	2.54
Made friends with students whose family background (economic and social) was very different from yours	2.67	2.85	2.70
Made friends with students whose race was different from yours	2.71	2.92	2.71
Had serious discussions with students whose philosophy of life or personal values were very different from yours	2.40	2.56	2.46
Had serious discussions with students whose political opinions or religious beliefs were very different from yours	2.46	2.56	2.39
STUDENT ACQUAINTANCES FACTOR SCORE	**2.56**	**2.71**	**2.57**

PERSONAL EXPERIENCES

	FIG	SOC	CHEM
Told a friend why you reacted to another person the way you did	2.89	3.03*	2.68
Discussed with other students why some groups get along smoothly and others groups do not	2.41	2.72*	2.30
Sought out a friend to help you with a personal problem	2.70	2.93*	2.46
Elected a course that dealt with understanding personal and social behavior	2.10	2.76*	1.85
Identified with a character in a book or movie and wondered what you might have done under similar circumstances	2.44	2.65	2.54
Read articles or books about personal adjustment and personality development	1.91	2.20*	1.90
Taken a test to measure your abilities, interests, or attitudes	1.87	2.16*	1.85
Asked a friend to tell you what he/she really thought about you	2.05	2.15	1.92
Been in a group where each person, including yourself, talked about his/her personal problems	2.04	2.17*	1.78
Talked with a counselor or other specialist about problems of a personal nature	1.22	1.40	1.19
PERSONAL EXPERIENCES FACTOR SCORE . .	**2.16**	**2.41***	**2.04**

ARTS, MUSIC, AND THEATER ACTIVITIES

	FIG	SOC	CHEM
Talked about art (painting, sculpture, architecture, artists, etc.) with other students at the university	2.18	2.17	2.13
Participated in some art activity (painting, pottery, weaving, drawing, etc.)	1.59	1.64	1.58
Went to an art gallery or art exhibit on the campus	1.82*	1.53	1.61
Attended a concert or other musical event at the university	1.51	1.47	1.42
Attended a play, dance concert, or other theater performance at the university	1.55	1.60	1.47
ACTIVITIES FACTOR SCORE	**1.73**	**1.68**	**1.63**

CLUBS AND ORGANIZATIONS

	FIG	SOC	CHEM
Looked in the student newspaper for notices about campus events and student organizations	2.38	2.19	2.37
Attended a program or event put on by a student group	1.94	1.86	1.94
Attended a meeting of a club, organization, or student government group	1.89	1.72	1.74
Discussed policies and issues related to campus activities and student government	1.58	1.64	1.55
Worked in some student organization or special project (publications, student government, social event, etc.)	1.44	1.41	1.31
Played on an intramural team	1.79	1.85	1.82
CLUBS FACTOR SCORE	**1.83**	**1.78**	**1.78**

where * indicates significant difference at 0.05 level

These differences are summarized in the form of factor scores in Table 4-17. In this case the factor scores are simply the sum of all item scores in each domain of activity divided by the number of items in the domain.

TABLE 4-17

ACTIVITY FACTOR SCORES FOR FIRST-YEAR STUDENTS IN FIG AND COMPARISON CLASSES

FACTOR SCORE	FIG	SOC	CHEM
Course	2.56	2.60	2.53
Library	1.88	2.08 *	1.81
Writing	2.78	2.87	2.67
Faculty	1.67	1.70	1.59
Students	2.56	2.71	2.57
Personal	2.16	2.41 *	2.04
Clubs	1.73	1.68	1.63
Arts	1.83	1.78	1.78

where * indicates a significant difference between groups at the .05 level.

Similarities between FIG and comparison class students extend as well to their self-reports of gains over the first year (Table 4-18). The factor scores on gains are virtually identical (2.43, 2.45, and 2.43). With the exception of three items (physical fitness, understanding science, and scientific experiments), there are no significant differences between the three groups on any estimates of gain. Given that their behaviors during the year are similar, it is not surprising that their estimates of gain are also similar.

But this similarity ends when students are asked for their judgments about the campus environment, its members, and its climate (Table 4-19). Along three dimensions of environment--other students, campus climate, and one's own sense of involvement -- students in the FIGs were significantly more positive in their evaluation of the institution than were students in the comparison classrooms. Specifically, students who participated in the FIGs saw other students as friendlier and more supportive, the campus climate as more hospitable, and themselves as more involved and excited during the first year of college (see questionnaire in Appendix A).

This greater sense of involvement, in particular with other students, is reflected as well in their self-reported patterns of students and friendships. Not only were FIG students somewhat more likely to study with other people, they were more likely to report having made more friends since coming to the University (Tables B-106 and 107). This apparently is not merely the reflection of the possibility that students who enrolled in FIGs were more likely to make friends generally but also of the fact that friendships were developed among FIG members (Tables B-107). Over 85 percent of FIG students reported still being friends with past FIG members and nearly 78 percent reported taking classes with past FIG members. And nearly half of those students said they currently study with those students. Little wonder that over 71 percent of FIG students described the FIGs as valuable or very valuable in providing an opportunity to meet people and make friends, and nearly 60 percent described FIGs as valuable or very valuable in allowing them to study together with other students.

TABLE 4-18

ESTIMATE OF FIRST YEAR GAINS AMONG FIG AND COMPARISON CLASS STUDENTS

	FIG	SOC	CHEM
Acquiring knowledge and skills applicable to a specific job or type of work. .	2.20	2.34	2.29
Acquiring background and specialization for further education in some professional, scientific, or scholarly field	2.51	2.45	2.76*
Gaining a broad general education about different fields of knowledge	2.64	2.83*	2.49
Gaining a range of information that may be relevant to a career	2.72	2.58	2.66
Developing an understanding and enjoyment of art, music, and drama	1.95	2.05*	1.65
Broadening my acquaintance and enjoyment of literature	1.95	2.08*	1.76
Writing clearly and effectively.	2.53	2.63	2.17
Acquiring familiarity with the use of computers	2.31	2.11	2.19
Becoming aware of different philosophies, cultures, and ways of life	2.55	2.50	2.31
Developing my own values and ethical standards	2.76	2.78	2.67
Understanding myself -- my abilities, interests and personality	2.85	2.83	2.84
Understanding other people and the ability to get along with different kinds of people	2.95	2.99	2.76
Ability to function as a team member	2.65	2.82	2.63
Developing good health habits and physical fitness	2.41	2.80*	2.33
Understanding the nature of science and experimentation	2.38	2.14	2.90*
Understanding new scientific and technical developments	2.18	1.99	2.73*
Becoming aware of the consequences (benefits/hazards/dangers/values) of new applications in science and technology	2.11	1.90	2.52*
Ability to think analytically and logically	2.66	2.63	2.67
Quantitative thinking - understanding probabilities, proportions, etc	2.30	2.27	2.53
Ability to put idea together, to see relationships, similarities, and differences between ideas	2.66	2.63	2.61
Ability to learn on my own, pursue ideas, and find information I need	2.79	2.71	2.77
Seeing the importance of history for understanding the present and the past. .	2.14	2.34*	1.96
Gaining knowledge about other parts of the world and other people (Asia, Africa, South America, etc.)	1.97	2.19	1.86
GAINS FACTOR SCORE	2.43	2.45	2.43

where * indicates significant difference at 0.05 level

TABLE 4-19

RATINGS OF INSTITUTIONAL ENVIRONMENT BY
FIG AND COMPARISON CLASS STUDENTS

	FIG	SOC	CHEM
Other Students	5.11*	4.77	4.48
Faculty Members	4.49	4.30	4.41
Administrative Personnel and Offices	3.84	3.78	3.75
Classes	4.46	4.38	4.29
Campus Climate	5.24*	5.03	4.82
Yourself	5.31*	5.01	4.90

where higher scores indicate a more positive judgment about attribute.

This enhanced sense of involvement is mirrored in a greater willingness to re-enroll at the University (Table 4-20). FIG students were not only more willing to re-enroll in the following Fall quarter than were students in the comparison classes (95.7 to 89.5 and 88.2 percent respectively), they were also more likely to want to enroll in the University had they the opportunity to "do it all over again" (81.0 to 72.1 and 66.7 percent respectively).

Not surprisingly, this willingness translates in the following Fall to higher rates of persistence among FIG students (Table 4-21). Though the persistence rate is high among all students, it is significantly higher among those who participated in the FIGs in the Fall quarter of the first year. Just as important, the grade point average over the course of the first year is significantly higher among FIG students than it is for students in the comparison classes. FIG students recorded a first-year grade point average of 3.14 as compared to 2.98 for all comparison class students ("Non-FIG") and 2.87 and 3.09 for sociology and chemistry class students respectively.

TABLE 4-20

ENROLLMENT INTENTIONS OF FIG AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

INTENT TO RE-ENROLL NEXT YEAR	FIG	SOC	CHEM
Yes	95.7* (243)	89.5 (77)	88.2 (90)
No	2.4 (6)	5.8 (5)	2.9 (3)
Not Sure	1.9 (5)	4.7 (4)	8.8 (9)

INTENT TO RE-ENROLL IF "COULD DO OVER AGAIN"	FIG	SOC	CHEM
Yes	81.0* (205)	72.1 (62)	66.7 (68)
No	4.0 (10)	10.5 (9)	12.8 (13)
Not Sure	15.0 (38)	17.4 (15)	20.6 (21)

where * indicates significant difference at 0.05 level

TABLE 4-21

PERFORMANCE AND PERSISTENCE OF FIG AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

OUTCOME:	FIG	SOC	CHEM	NON-FIG
GRADE POINT AVERAGE	3.14* (251)	2.87 (83)	3.09 (99)	2.98 (181)
PERSISTENCE	99.2* (251)	94.3 (83)	97.1 (99)	95.8 (99)

where: Non-FIG represents SOC and CHEM combined;

* indicates significant difference at 0.05 level

What these descriptive analyses thus far suggest is that participation in the FIG does have a positive impact upon performance and persistence. But its impact is not through altering behaviors but through a shifting view of the nature of the university environment and one's sense of involvement in that environment. Being involved in the FIGs seems to positively influence one's sense of one's own involvement as well as the nature of one's peers and general institutional climate. These, in turn, are associated with subsequent performance and persistence.

But of course these judgments are, at this point, highly speculative. There are a number of factors that could explain these associations. Not the least of these has to do with possible self-selection into the FIGs.

Early vs. Late Enrolled FIGs

To test this possibility, we compared the behavior scores, environmental variables, and outcomes for students who enrolled in FIGs early ("early FIG students") with those who enrolled late in the registration process ("late FIG students") (Tables 4-22 to 4-26). We did so because many, if not most, of late FIG students enrolled in the FIGs because they were the sole option left open to them. Early-closing FIGs typically enrolled students who sought out the FIGs early in the registration period. If there is a substantial self-selection artifact that can account for the differences noted above, it should be seen in the differences between students in the two types of FIGs.

A quick review of behaviors (Table 4-22) reveal several differences between those who enroll early as opposed to late. Early FIG students reported more frequent writing behaviors, while late FIG students were more active in clubs and organizations. These differences can be explained, however, by other differences between those students that describe who they are and what other choices they made in enrolling at the University. Relative to late enrollees, early FIG students are more likely to be enrolled part-time (12.4 verses 1.5 percent) and be in a fraternity or sorority (20.3 to 12.7 percent) and therefore less likely to join clubs and organizations. They are more likely to major in liberal arts and business administration (18.1 and 12.9 percent verses 4.4 and 1.5 percent respectively) but less likely to major in sciences (9.9 verses 26.1 percent) where writing is less frequent. Equally important, early FIG students are much more likely to be in a writing link FIG (44.1 verses 18.3 percent). Table 4-23 summarizes these differences as expressed by activity factor scores.

These differences aside, early FIG students do not report any greater gains than do late FIG students (Table 4-24). Where item differences do exists (e.g. perceived gain in understanding new scientific and technical developments), they can be accounted for by differences in majors noted above. They do respond differently, however, to questions concerning institutional environment (Table 4-25). Early FIG students were more positive on items concerning faculty, administrative personnel, and campus climate. But since it is only for the item on campus climate that FIG students were more positive than comparison group classrooms, it is only for that item that it might be argued that self-selection artifacts could account for that difference. Clearly this does not apply to the items on Other Students and Yourself noted earlier. For those items, participation in a FIG, regardless of time of enrollment, is associated with more positive judgments about differing aspects of the college environment.

TABLE 4-22

FIRST YEAR EXPERIENCES OF EARLY AND LATE ENROLLED FIG STUDENTS

COURSE LEARNING

	EARLY	LATE
Participated in class discussions	2.51	2.56
Took detailed notes in class	3.51	3.47
Made outlines from class notes or readings	2.08	2.00
Underlined major points in the readings	2.96	2.72
Summarized major points and information from readings or notes	2.43	2.49
Worked on paper/project where you had to integrate ideas from various sources	2.67	2.51
Did additional readings on topics that were introduced and discussed in class.	1.77	1.90
Thought about practical applications of the material	2.75	2.66
Studied course materials with other students.	2.68	2.66
Tried to explain the material to another student or friend	2.81	2.92
Tried to see how different facts and ideas fit together	2.84	2.87
Considered the accuracy and credibility of information from different sources.	2.40	2.41
Participated in self-assessment activities	2.01	2.01
COURSE FACTOR SCORE	2.56	2.55

LIBRARY EXPERIENCES

	EARLY	LATE
Used the library as a quiet place to read or study material you brought with you . . .	2.76	2.72
Read something in the reserve book room or reference section	1.68	1.63
Checked out books to read (not textbooks)	1.44	1.65
Used the card catalogue or computer to find materials the library had on a topic . . .	2.24	2.14
Prepared a bibliography or set of references for a term paper or report	1.84	1.69
Asked the librarian for help in finding materials on some topic	1.81	1.72
Used indexes (e.g. Readers Guide to Periodical Literature) to journal articles .	1.83	1.61
Found some interesting material to read just by browsing in the stacks	1.55	1.55
LIBRARY FACTOR SCORE	**1.89**	**1.84**

EXPERIENCE IN WRITING

	EARLY	LATE
Used a dictionary or thesaurus to look up the proper meaning of words	3.01	2.93
Consciously and systematically thought about grammar, sentence structure, paragraphs, word choice and sequence of ideas as you were writing	3.15	3.10
Wrote a rough draft of a paper or essay and then revised it yourself before handing it in	3.24	3.10
Spent at least five hours or more writing a paper (not counting time spent in reading or at the library)	3.15	2.96
Asked other people to read something you write to see if it was clear to them	2.86*	2.49
Referred to a book or manual about style of writing, grammar, etc.	2.08	1.96
Revised a paper or composition two or more times before you were satisfied with it	2.62*	2.28
Asked an instructor for advice and help to improve your writing	2.64*	2.17
Made an appointment to talk with an instructor who had criticized a paper you had written	2.66*	2.31
Submitted for publication an article, story, or other composition you had written	1.05	1.13
WRITING FACTOR SCORE	**2.84***	**2.62**

EXPERIENCES WITH FACULTY

	EARLY	LATE
Talked with a faculty member	2.20	2.30
Asked your instructor for information related to a course you were taking grades, make-up work, assignments, etc.)	2.08	2.07
Made an appointment to meet with a faculty member in his/her office.	1.84	1.77
Visited informally and briefly with an instructor after class	1.91	1.94
Discussed your career plans and ambitions with a faculty member	1.35	1.44
Discussed ideas for a term paper or other class project with a faculty member	2.11*	1.80
Asked your instructor for comments and criticisms about your work	2.07*	1.80
Discussed personal problems or concerns with a faculty member	1.14	1.10
Had coffee, cokes, or snacks with a faculty member	1.09	1.12
Worked with a faculty member on a research project	1.10	1.09
FACULTY FACTOR SCORE	1.69	1.64

STUDENT ACQUAINTANCES

	EARLY	LATE
Made friends with students I met in my classes	2.59	2.56
Made friends with students whose academic major field was very different from yours	2.64	2.67
Made friends with students whose interests were very different from yours	2.55	2.44
Made friends with students whose family background (economic and social) was very different from yours	2.68	2.65
Made friends with students whose race was different from yours	2.73	2.68
Had serious discussions with students whose philosophy of life or personal values were very different from yours	2.43	2.35
Had serious discussions with students whose political opinions or religious beliefs were very different from yours	2.49	2.38
STUDENT ACQUAINTANCES FACTOR SCORE	2.58	2.51

PERSONAL EXPERIENCES

	EARLY	LATE
Told a friend why you reacted to another person the way you did	2.92	2.82
Discussed with other students why some groups get along smoothly and others groups do not	2.40	2.42
Sought out a friend to help you with a personal problem	2.73	2.65
Elected a course that dealt with understanding personal and social behavior	2.16	1.94
Identified with a character in a book or movie and wondered what you might have done under similar circumstances	2.46	2.41
Read articles or books about personal adjustment and personality development	1.91	1.93
Taken a test to measure your abilities, interests, or attitudes	1.93	1.75
Asked a friend to tell you what he/she really thought about you	2.05	2.08
Been in a group where each person, including yourself, talked about his/her personal problems	2.01	2.11
Talked with a counselor or other specialist about problems of a personal nature	1.26	1.14
PERSONAL EXPERIENCES FACTOR SCORE	**2.18**	**2.13**

ARTS, MUSIC, AND THEATER ACTIVITIES

	EARLY	LATE
Talked about art (painting, sculpture, architecture, artists, etc.) with other students at the university	2.15	2.26
Participated in some art activity (painting, pottery, weaving, drawing, etc.)	1.64	1.46
Went to an art gallery or art exhibit on the campus	1.83	1.82
Attended a concert or other musical event at the university	1.54	1.41
Attended a play, dance concert, or other theater performance at the university	1.60	1.39
ACTIVITIES FACTOR SCORE	1.75	1.67

CLUBS AND ORGANIZATIONS

	EARLY	LATE
Looked in the student newspaper for notices about campus events and student organizations	2.33	2.53
Attended a program or event put on by a student group	1.88	2.10
Attended a meeting of a club, organization, or student government group	1.81	2.10*
Discussed policies and issues related to campus activities and student government	1.51	1.75*
Worked in some student organization or special project (publications, student government, social event, etc.)	1.38	1.59
Played on an intramural team	1.78	1.79
CLUBS FACTOR SCORE	1.77	1.97*

Where * indicates significant difference at 0.05 level

TABLE 4-23

ACTIVITY FACTOR SCORES FOR FIRST-YEAR STUDENTS
IN EARLY FIG AND LATE ENROLLED FIGS

FACTOR SCORE	EARLY-FIG	LATE-FIG
Course	2.56	2.55
Library	1.89	1.84
Writing	2.84 *	2.62
Faculty	1.69	1.64
Students	2.58	2.51
Personal	2.18	2.13
Clubs	1.75	1.67
Arts	1.77	1.97 *

where * indicates a significant difference between groups at the .05 level.

TABLE 4-24

ESTIMATE OF FIRST YEAR GAINS AMONG EARLY AND LATE ENROLLED FIG STUDENTS

	EARLY	LATE
Acquiring knowledge and skills applicable to a specific job or type of work	2.22	2.12
Acquiring background and specialization for further education in some professional, scientific, or scholarly field	2.54	2.44
Gaining a broad general education about different fields of knowledge	2.73*	2.44
Gaining a range of information that may be relevant to a career	2.74	2.66
Developing an understanding and enjoyment of art, music, and drama	1.99	1.82
Broadening my acquaintance and enjoyment of literature	2.01*	1.79
Writing clearly and effectively	2.69*	2.15
Acquiring familiarity with the use of computers	2.35	2.23
Becoming aware of different philosophies, cultures, and ways of life	2.56	2.58
Developing my own values and ethical standards	2.76	2.79
Understanding myself – my abilities, interests and personality	2.82	2.92
Understanding other people and the ability to get along with different kinds of people	2.96	2.93
Ability to function as a team member	2.73	2.48
Developing good health habits and physical fitness	2.40	2.49
Understanding the nature of science and experimentation	2.30	2.62
Understanding new scientific and technical developments	2.08	2.46
Becoming aware of the consequences (benefits/hazards/dangers/values) of new applications in science and technology	2.06	2.25
Ability to think analytically and logically	2.66	2.69
Quantitative thinking - understanding probabilities, proportions, etc	2.27	2.40
Ability to put idea together, to see relationships, similarities, and differences between ideas	2.67	2.65
Ability to learn on my own, pursue ideas, and find information I need	2.82	2.73
Seeing the importance of history for understanding the present and the past.	2.26*	1.83
Gaining knowledge about other parts of the world and other people (Asia, Africa, South America, etc.)	2.06*	1.77
GAINS FACTOR SCORE	2.45	2.40

where * indicates significant difference at 0.05 level

TABLE 4-25

RATINGS OF INSTITUTIONAL ENVIRONMENT BY EARLY AND LATE ENROLLED FIG STUDENTS

	EARLY FIG	LATE FIG
Other Students	5.14	5.03
Faculty Members	4.56	4.27
Administrative Personnel and Offices	3.98*	3.46
Classes	4.51	4.34
Campus Climate	5.31	5.04
Yourself	5.25	5.43

where higher score indicates a more positive judgment about attribute; * indicates significant difference at 0.05 level

The same conclusion applies to measures of college performance and persistence. Given that early and late FIG students were very similar in measures of performance and persistence (Table 4-26 and 4-27), it would be difficult to argue that self-selection could explain differences between FIG and comparison class students in intentions to re-enroll and actual persistence.

TABLE 4-26

ENROLLMENT INTENTIONS OF EARLY AND LATE ENROLLED FIG STUDENTS

(percentages with numbers in parentheses)

INTEND TO RE-ENROLL IN FALL	EARLY FIG	LATE FIG
Yes	94.5 (171)	98.6 (70)
No	2.4 (6)	3.3 (6)
Not Sure	1.6 (4)	2.2 (4)

INTEND TO RE-ENROLL IF "COULD DO OVER AGAIN"	EARLY FIG	LATE FIG
Yes	81.6 (145)	81.7 (58)
No	4.4 (8)	2.8 (2)
Not Sure	15.0 (27)	15.5 (11)

TABLE 4-27

PERFORMANCE AND PERSISTENCE OF EARLY AND LATE ENROLLED FIG STUDENTS

(percentages with numbers in parentheses)

OUTCOME:	EARLY FIG	LATE FIG
GRADE POINT AVERAGE	3.12 (181)	3.19 (70)
PERSISTENCE	99.5 (181)	98.6 (70)

It follows then that one cannot dismiss the positive association between participation in the FIG program and perceptions and persistence as simply a reflection of who enters the FIGs. Those effects seem to apply regardless of whether one sought out the FIG early in the registration process or enrolled in them late in that process because of limited alternative choices.

Writing Link and Non-Writing Link FIGS

Given that we have reason to believe that participation in the FIG program is positively associated with views of the campus environment and, in turn, with various measures of persistence, the question now arises as to the relationship between type of FIG and program impact. Specifically, we now ask whether students enrolled in Writing Link (WL) FIGs exhibit different behaviors, gains, and outcomes than do students enrolled in Non-Writing Link (NWL) FIGs. As noted earlier, the former FIGs link topics in a content course and the activities of the writing class. If such a linkage shapes one's academic experience, it should be observable in those FIGs.

Even a cursory review of Table 4-28 reveals that this is indeed the case. Along a range of behaviors, students in the Writing Link FIGs are different from students in the Non-Writing Link FIGs. Specifically, students in Writing Link FIGs report more frequent behaviors along a range of course learning, writing, faculty, and personal experiences than do non-writing link students. But while they report more frequent arts, music, and theater activities, they are less engaged in clubs and organizations than are non-writing link students. While some of these differences, especially in arts, music, and theater and in clubs and organizations, can be accounted for by differences in major and residence -- Writing Link students are more likely to be in a fraternity or sorority and major in liberal arts rather than in science -- they do not easily explain other differences, especially those of an academic nature. Again these differences are summarized in the form of activity factor scores in Table 4-29.

It is noteworthy that writing link students report themselves being more involved in a range of course and writing activities, and more frequently engaged with faculty concerning a variety of issues pertaining to academic work (e.g., discussing ideas for a term paper or other class project with a faculty member). Presumably the very nature of the writing link courses requires students to engage in those activities. These, in turn, are reflected in some of the students' estimates of gain over the course of the first year, in particular the estimated gain in writing (Table 4-30). Other differences in estimated gains -- those on arts, music, literature, and general education and those on science and quantitative/analytic thinking -- can be attributed as easily to differences in major as they can to the presumed effect of participation in writing link FIGs.

TABLE 4-28

FIRST YEAR EXPERIENCES OF WRITING LINK (WL) AND NON-WRITING LINK (NWL) FIG STUDENTS

COURSE LEARNING

	WL	NWL
Participated in class discussions	2.67*	2.43
Took detailed notes in class	3.64*	3.42
Made outlines from class notes or readings	2.18	1.98
Underlined major points in the readings	3.11*	2.77
Summarized major points and information from readings or notes	2.48	2.43
Worked on paper or project where you had to integrate ideas from various sources	2.84*	2.50
Did additional readings on topics that were introduced and discussed in class	1.76	1.84
Thought about practical applications of the material	2.71	2.73
Studied course materials with other students	2.62	2.71
Tried to explain the material to another student or friend	2.76	2.88
Tried to see how different facts and ideas fit together	2.77	2.89
Considered the accuracy and credibility of information from different sources	2.37	2.42
Participated in self-assessment activities	2.09	1.96
COURSE FACTOR SCORE	2.61	2.53

LIBRARY EXPERIENCES

	WL	NWL
Used the library as a quiet place to read or study material you brought with you . . .	2.86	2.69
Read something in the reserve book room or reference section	1.73	1.63
Checked out books to read (not textbooks)	1.57	1.47
Used the card catalogue or computer to find materials the library had on a topic . . .	2.26	2.19
Prepared a bibliography or set of references for a term paper or report	2.07*	1.65
Asked the librarian for help in finding materials on some topic	1.94*	1.70
Used indexes (e.g. Readers Guide to Periodical Literature) to journal articles	1.80	1.75
Found some interesting material to read just by browsing in the stacks	1.54	1.56
LIBRARY FACTOR SCORE	**1.97**	**1.83**

EXPERIENCE IN WRITING

	WL	NWL
Used a dictionary or thesaurus to look up the proper meaning of words	3.17*	2.88
Consciously and systematically thought about grammar, sentence structure, paragraphs, word choice and sequence of ideas as you were writing	3.25	3.07
Wrote a rough draft of a paper or essay and then revised it yourself before handing it in	3.32	3.14
Spent at least five hours or more writing a paper (not counting time spent in reading or at the library)	3.28*	2.99
Asked other people to read something you write to see if it was clear to them	2.95*	2.65
Referred to a book or manual about style of writing, grammar, etc.	2.03	2.05
Revised a paper or composition two or more times before you were satisfied with it	2.66	2.45
Asked an instructor for advice and help to improve your writing	2.74*	2.38
Made an appointment to talk with an instructor who had criticized a paper you had written	2.78*	2.44
Submitted for publication an article, story, or other composition you had written	1.10	1.06
WRITING FACTOR SCORE	**2.93***	**2.70**

EXPERIENCES WITH FACULTY

	WL	NWL
Talked with a faculty member	2.38	2.14
Asked your instructor for information related to a course you were taking grades, make-up work, assignments, etc.)	2.23*	1.99
Made an appointment to meet with a faculty member in his/her office	2.00*	1.71
Visited informally and briefly with an instructor after class	2.00	1.87
Discussed your career plans and ambitions with a faculty member	1.38	1.37
Discussed ideas for a term paper or other class project with a faculty member	2.30*	1.87
Asked your instructor for comments and criticisms about your work	2.18*	1.89
Discussed personal problems or concerns with a faculty member	1.18	1.09
Had coffee, cokes, or snacks with a faculty member	1.10	1.11
Worked with a faculty member on a research project	1.10	1.10
FACULTY FACTOR SCORE	1.78*	1.61

STUDENT ACQUAINTANCES

	WL	NWL
Made friends with students I met in my classes	2.59	2.57
Made friends with students whose academic major field was very different from yours	2.76	2.59
Made friends with students whose interests were very different from yours	2.70*	2.42
Made friends with students whose family background (economic and social) was very different from yours	2.63	2.69
Made friends with students whose race was different from yours	2.68	2.73
Had serious discussions with students whose philosophy of life or personal values were very different from yours	2.49	2.36
Had serious discussions with students whose political opinions or religious beliefs were very different from yours	2.53	2.42
STUDENT ACQUAINTANCES FACTOR SCORE	2.62	2.53

PERSONAL EXPERIENCES

	WL	NWL
Told a friend why you reacted to another person the way you did	3.05*	2.80
Discussed with other students why some groups get along smoothly and others groups do not	2.37	2.43
Sought out a friend to help you with a personal problem	2.91*	2.59
Elected a course that dealt with understanding personal and social behavior	2.50*	1.88
Identified with a character in a book or movie and wondered what you might have done under similar circumstances	2.58	2.37
Read articles or books about personal adjustment and personality development	2.01	1.86
Taken a test to measure your abilities, interests, or attitudes	1.98	1.82
Asked a friend to tell you what he/she really thought about you	2.05	2.06
Been in a group where each person, including yourself, talked about his/her personal problems	2.11	2.00
Talked with a counselor or other specialist about problems of a personal nature	1.27	1.20
PERSONAL EXPERIENCES FACTOR SCORE . .	**2.28***	**2.10**

ARTS, MUSIC, AND THEATER ACTIVITIES

	WL	NWL
Talked about art (painting, sculpture, architecture, artists, etc.) with other students at the university	2.34*	2.09
Participated in some art activity (painting, pottery, weaving, drawing, etc.)	1.71	1.52
Went to an art gallery or art exhibit on the campus	1.92	1.77
Attended a concert or other musical event at the university	1.64*	1.42
Attended a play, dance concert, or other theater performance at the university	1.67	1.47
ACTIVITIES FACTOR SCORE	1.86*	1.66

CLUBS AND ORGANIZATIONS

	WL	NWL
Looked in the student newspaper for notices about campus events and student organizations	2.28	2.44
Attended a program or event put on by a student group	1.81	2.02
Attended a meeting of a club, organization, or student government group	1.66	2.02*
Discussed policies and issues related to campus activities and student government	1.49	1.62
Worked in some student organization or special project (publications, student government, social event, etc.)	1.37	1.47
Played on an intramural team	1.73	1.81
CLUBS FACTOR SCORE	1.71	1.89*

where * indicates significant difference at 0.05 level

These differences are summarized in the form of factor scores in Table 4-29. In this case the factor scores are simply the sum of all item scores in each domain of activity divided by the number of items in the domain. In this case, however, we have added data that summarizes the factor scores of students in both comparison classes (sociology and chemistry) as a group. In doing so it becomes apparent that differences between the activity scores of FIG and non-FIG students is primarily due to the behaviors of students in the Writing-Link FIGs. Where there were no significant differences favoring FIG students, as a group (Table 4-17), there now are a number of positive differences. For instance, scores for Writing Link FIG students on Writing (2.93) and Faculty (1.78) are significantly higher than the respective scores for non-FIG students (2.76 and 1.64).

TABLE 4-29

ACTIVITY FACTOR SCORES FOR FIRST-YEAR STUDENTS IN WRITING LINK AND NON-WRITING LINK FIGS

FACTOR SCORE	WL FIGS	NWL FIGS	NON FIGS
Course	2.61	2.53	2.56
Library	1.97 *	1.83	1.93
Writing	2.93 *	2.70	2.76
Faculty	1.78 *	1.61	1.64
Students	2.62	2.53	2.63
Personal	2.28 *	2.10	2.21
Clubs	1.86 *	1.66	1.65
Arts	1.71	1.89 *	1.78

where * indicates a significant difference between Writing Link and Non-Writing Link FIGs at the .05 level.

Though the factor scores on perceptions of intellectual gain do not differ between Writing-Link and Non-Writing Link FIG students, it is noteworthy that students in the Writing Link FIG see themselves as having made significantly greater gain in writing and in the use of literature than did the students in the Non-Writing Link FIGs (Tables 4-30). Average gain scores on each of these items were 2.77 and 2.25 for the Writing Link FIGs and 2.41 and 1.78 for the Non-Writing Link FIGs. The corresponding responses for students in the comparison group was 2.33 and 1.94 respectively (Table 4-18). On these items at least, much of the perceived gain on these items again comes from the responses of students in the Writing Link FIGs.

TABLE 4-30

ESTIMATE OF FIRST YEAR GAINS AMONG WRITING LINK (WL) AND NON WRITING LINK (NWL) FIG STUDENTS

	WL	NWL
Acquiring knowledge and skills applicable to a specific job or type of work	2.07	2.26
Acquiring background and specialization for further education in some professional, scientific, or scholarly field	2.29	2.64*
Gaining a broad general education about different fields of knowledge	2.84*	2.53
Gaining a range of information that may be relevant to a career	2.72	2.78
Developing an understanding and enjoyment of art, music, and drama	2.21*	1.79
Broadening my acquaintance and enjoyment of literature	2.25*	1.78
Writing clearly and effectively	2.77*	2.41
Acquiring familiarity with the use of computers	2.00	2.49*
Becoming aware of different philosophies, cultures, and ways of life	2.62	2.54
Developing my own values and ethical standards	2.86	2.72
Understanding myself – my abilities, interests and personality	2.92	2.81
Understanding other people and the ability to get along with different kinds of people	3.00	2.93
Ability to function as a team member	2.69	2.64
Developing good health habits and physical fitness	2.47	2.40
Understanding the nature of science and experimentation	1.90	2.66*

TABLE 4-30 (continued)

Understanding new scientific and technical developments	1.64	2.50*
Becoming aware of the consequences (benefits/hazards/dangers/values) of new applications in science and technology	1.69	2.35*
Ability to think analytically and logically	2.54	2.74
Quantitative thinking - understanding probabilities, proportions, etc	1.94	2.51*
Ability to put idea together, to see relationships, similarities, and differences between ideas	2.61	2.69
Ability to learn on my own, pursue ideas, and find information I need	2.86	2.76
Seeing the importance of history for understanding the present and the past	2.43*	1.98
Gaining knowledge about other parts of the world and other people (Asia, Africa, South America, etc.)	2.25*	1.83
GAINS FACTOR SCORE	2.40	2.46

where * indicates significant difference at 0.05 level

Writing Link students' perceptions of the college environment, especially of faculty and classes, were significantly more positive than those of students in non-writing link FIGs (Table 4-31). In these cases, there was a clear association between the character of their behaviors in classes, in writing, and with faculty and their perception of those domains of the institutional environment. These, as noted above, are also two of the areas of perceived intellectual gain where Writing-Link FIG students saw greater gain than did students in Non-Writing Link FIGs.

When compared to students in the comparison classes, it is again evident that much of the difference between FIG and comparison class students, especially in their perceptions of faculty and classes, results from the higher scores of students in the Writing-Link FIGs. Nevertheless, some differences, most notably on perceptions of other students and one's own involvement, are common to both types of FIGs. In this manner, it can be argued that all FIGs, regardless of type, yield more positive views of particular facets of institutional life and that Writing-Link FIGs provide for an enriched experience that is above and beyond that of FIGs generally.

TABLE 4-31

RATINGS OF INSTITUTIONAL ENVIRONMENT BY WRITING LINK AND NON WRITING LINK FIG STUDENTS

	WL FIG	NWL FIG	COMP
Other Students	5.12	5.11	4.61
Faculty Members	4.69 *	4.36	4.36
Administrative Personnel and Offices	3.89	3.81	3.76
Classes	4.69 *	4.34	4.33
Campus Climate	5.32	5.19	4.91
Yourself	5.26	5.32	4.95

where higher score indicates a more positive judgment about attribute; and where
* indicates significant difference between Writing Link and Non-Writing Link FIGs at 0.05 level.

This latter observation can be said to apply as well to the relationship between participation in Writing-Link and Non-Writing Link FIGs and academic performance during the first year. Though students in both types of FIGs outperformed students in comparison classes, students in the Writing-Link FIGs earned a still higher grade point average over the course of the first year (Table 4-32). As to persistence, it is not surprising, given the very high level of persistence of the FIG sample as a whole (99.2 percent) that there is no apparent association between type of FIG and subsequent persistence. Nevertheless, it is interesting that writing link students were more likely to say yes to the item on re-enrolling had they the "opportunity to do it over again" (Table 4-33).

TABLE 4-32

PERFORMANCE AND PERSISTENCE OF WRITING LINK AND NON-WRITING LINK STUDENTS

(percentages with numbers in parentheses)

OUTCOME:	WL FIG	NWL FIG	COMP
GRADE POINT AVERAGE	3.22* (92)	3.10 (161)	2.98 (182)
PERSISTENCE	98.9 (92)	99.4 (161)	95.8 (182)

TABLE 4-33

ENROLLMENT INTENTIONS OF WRITING LINK AND NON-WRITING LINK FIG STUDENTS

(percentages with numbers in parentheses)

INTEND TO RE-ENROLL IF "COULD DO OVER AGAIN"	WL FIG	NWL FIG
Yes	84.6 (77)	78.8 (126)
No	6.6 (6)	2.5 (4)
Not Sure	8.8 (8)	18.8 (30)

Type of Residence and Participation in a Freshman Interest Group

Because of the possibility that the effect of participation in a FIG might be different for persons who already have formed significant peer associations such as those found in fraternities and sororities, we ran one final descriptive analysis. Specifically, we looked at the behaviors, perceptions, and outcomes for students in the FIGs and the comparison classes as they varied for different types of residential conditions. In this case, four categories of residence were employed; on-campus in residential halls, on-campus in a fraternity or sorority, off-campus, and married student housing. Since it proved to be the case that there was only one person who fell into that last category, that category was eliminated from subsequent analyses.

Table 4-34 below describes the factor activity scores for members of the first-year panel by group membership and residential setting. Several observations can be made of these data. First, regarding the relationship between place of residence and activities, it is evident that students in the comparison classes who live off-campus are, not surprisingly, less involved than are their classmates living on-campus. A simple average of their activity scores (1.99) is below that of all other groups whose mean scores range from 2.13 to 2.24. But the same is not true among students in the FIGs. Though they are less involved than are students in a fraternity or sorority, they are as involved as are others students living on-campus. Finally, among students of both groups (FIG and comparison), being in a fraternity or sorority is generally associated with the highest levels of activity (2.24 and 2.23 respectively).

TABLE 4-34

ACTIVITY FACTOR SCORES FOR FIG AND COMPARISON GROUP STUDENTS BY TYPE OF RESIDENCE

Group	Freshman Interest Group			Comparison Group		
Residence	On Campus	Fraternity Sorority	Off Campus	On Campus	Fraternity Sorority	Off Campus
Course	2.50	2.72	2.60	2.63	2.63	2.43
Writing	2.72	2.96	2.81	2.76	2.85	2.74
Faculty	1.63	1.83	1.66	1.67	1.64	1.61
Student	2.57	2.62	2.49	2.75	2.73	2.35
Library	1.83	2.05	1.88	1.91	2.03	1.89
Personal	2.13	2.40	2.06	2.27	2.33	2.03
Art	1.76	1.61	1.74	1.73	1.76	1.42
Clubs	1.90	1.72	1.70	1.90	1.85	1.48
MEAN	2.13	2.24	2.12	2.20	2.23	1.99

Generally the same statements can be made for student perceptions of their intellectual gain and the college environment (Table 4-35). But there are differences. The most noticeable is the relationship between being a member of a Freshman Interest Group is, regardless of residence, associated with more positive views of other students, classes, the campus climate and one's own involvement (see Appendix A for exact item wordings). It is also the case among comparison class students that students living off-campus are somewhat less positive in their views than are other comparison class students. This is particularly evident on perceptions of other students and their own sense of involvement. Again, the same does not apply for off-campus students in the FIGs. There views are no different, generally, than are those views of other FIG members.

TABLE 4-35

PERCEPTIONS OF COLLEGE ENVIRONMENT AND INTELLECTUAL GAIN FOR FIG AND COMPARISON GROUP STUDENTS BY TYPE OF RESIDENCE

Group	Freshman Interest Group			Comparison Group		
Residence	On Campus	Fraternity Sorority	Off Campus	On Campus	Fraternity Sorority	Off Campus
Environ1	5.14	5.24	4.92	4.83	4.72	4.21
Environ2	4.40	4.50	4.68	4.42	4.13	4.47
Environ3	3.77	3.93	3.94	3.76	3.67	3.85
Environ4	4.36	4.60	4.62	4.28	4.13	4.32
Environ5	5.18	5.48	5.17	4.99	4.92	4.89
Environ6	5.24	5.63	5.17	5.23	5.23	4.34
Gain	2.39	2.59	2.45	2.49	2.46	2.34

Where:
- Environ1 = perceptions of other students.
- Environ2 = perceptions of faculty.
- Environ3 = perceptions of administrators.
- Environ4 = perceptions of classes.
- Environ5 = perceptions of campus climate.
- Environ6 = perceptions of oneself.
- Gain = factor score on perceptions of intellectual gain.

The latter finding, and that associated with activity scores (Table 4-34), suggest that the impact of FIG membership may be strongest for commuting students whose off-campus residence tends to remove them from the daily activities of the campus. In this instance, it can be argued that the FIGs provide those students a form of peer membership that is not easily obtained otherwise. For students living on campus, especially those in a fraternity or sorority, there are likely to be a range of other peer groups, beyond that of the FIG, with whom the student can associate.

Differences in activity and perceptions do not carry over, however, to academic performance and persistence outcomes (Table 4-36). Though it is the case, as noted earlier, that students in the FIGs achieve higher grade point average and persist at a higher rate than do students in the comparison classes, there is no obvious pattern of differences between students living in different residential settings.

TABLE 4-36

FIRST YEAR ACADEMIC PERFORMANCE AND PERSISTENCE FOR FIG AND COMPARISON GROUP STUDENTS BY TYPE OF RESIDENCE

Group	Freshman Interest Group			Comparison Group		
Residence	On Campus	Fraternity Sorority	Off Campus	On Campus	Fraternity Sorority	Off Campus
GPA	3.16	3.15	3.09	3.01	2.90	3.01
Persist	99.3	100.0	98.1	94.8	97.4	96.2

Descriptive Statistics: Summary

What these descriptive analyses thus far suggest is that participation in the FIG does have a positive impact upon persistence. But its impact for FIGs generally is not through altering behaviors but through a shifting view of the nature of the university environment and one's sense of involvement in that environment. Being involved in the FIGs seems to positively influence one's sense of one's own involvement as well as the nature of one's peers and general institutional climate. These, in turn, seem to influence both academic performance and subsequent persistence. And this is the case among a group of students who have quite high levels of persistence.

These data also lead us to think that participation in the Writing Link FIGs is a more positive experience than is participation in Non-Writing Link FIGs generally. Though both are associated with positive effects on perceptions relative to non-FIG students (Table 4-31), the effects of Writing Link classes are clearly distinct to those classes rather than to FIGs generally. This is especially evident regarding writing activities and perceptions of faculty and classes. And of all students studied, students in the Writing-Link FIGs were most positive regarding their willingness to re-enroll at the University of Washington if "they could do it over again."

Multivariate Analysis

Though informative, the above descriptive analysis does not demonstrate that participation in the FIGs is independently associated with enhanced persistence. It merely suggests an association that is univariate in character. To test the question of independent association we now turn to several forms of multi-variate analysis, specifically discriminant and regression analysis.

Discriminant Analysis

First, a stepwise discriminant analysis was carried out on persistence into the fall quarter (1,0) as the dependent variable. Independent variables were added stepwise according to a conceptual scheme that added background variables first (including a measure of ability), followed by entry characteristic variables (including participation in FIGs), then by experience variables, by measures of perception (both environmental and intellectual gain), and finally by academic performance over the course of the first academic year. The full variable set entered into the equation is shown below in Table 4-37. In this instance, no distinction was made between type of FIG or date of enrollment in the FIG. As the analysis proceeds, only those variables remain in the discriminant function that serve to significantly discriminate between the dependent groups (1,0). The results of this analysis is shown below in Table 4-38. Only those variables whose probability of $F < 0.10$ are shown.

TABLE 4-37

VARIABLES IN A MULTIVARIATE ANALYSIS OF PERSISTENCE AT THE UNIVERSITY OF WASHINGTON

GENDER	= gender.
MED	= mother's educational level.
FED	= father's educational level.
SAT	= total SAT score.
HSTUDY	= hours per week studying.
RESTYPE	= type of residence.
WORK	= working while in college.
COURSE	= course activity factor score.
FACULTY	= faculty activity factor score.
STUDENT	= student activity factor score.
WRITING	= writing activity factor score.
PERSONAL	= personal activity factor score.
LIBRARY	= library activity factor score.
CLUBS	= involvement in clubs activity factor score.
ARTS	= involvement in arts activity score.
ENVIRON1	= perceptions of other students.
ENVIRON2	= perceptions of faculty.
ENVIRON3	= perceptions of administrators.
ENVIRON4	= perceptions of classes.
ENVIRON5	= perceptions of campus climate.
ENVIRON6	= perceptions of oneself.
GAIN	= perceptions of intellectual gain.
EGPA	= first year grade point average.

TABLE 4-38

DISCRIMINANT ANALYSIS ON PERSISTENCE FOR
FRESHMAN INTEREST GROUP AND COMPARISON CLASS STUDENTS

Variable	Partial R^2	F Statistic	Prob > F
FIG	0.0137	5.561	0.019
GENDER	0.0149	6.033	0.015
MED	0.0091	3.635	0.057
WORK	0.0093	3.742	0.054
WRITING	0.0073	2.947	0.087
ENVIRON1	0.0091	3.646	0.057
GPA	0.0403	16.452	0.001

where: FIG = participation in Freshman Interest Group.
GENDER = gender of respondent.
MED = level of mother's education.
WORK = working while in college.
WRITING = writing activities factor score.
ENVIRON1 = perceptions of other students.
GPA = college grade point average.

As expected, no variable including FIG participation does much to discriminate between persisters and leavers. Though significant, all the included variables provide only very limited partial R^2 to the analysis. This of course is not so much a reflection of the importance of the variables as it is of the very limited distinction between the rates of persistence of the two groups (99.2 and 95.8 percent). Nevertheless, it was the case that participation in the FIG did serve to significantly discriminate between stayers and leavers. At the same time, one's gender, level of mother's education, working while in college, involvement in writing activities, perceptions of other students and first year grade point average also prove to be significant discriminators of persistence. For this sample of students, persistence is a function not only of one's background (mothers education), but also of one's involvements (in work, programs, and writing activities), perceptions of fellow students, and academic performance during the first year.

Regression Analysis

Next, two regression analyses were carried out. The first, a stepwise regression equation, sought to predict first-year grade point average as a function of student attributes, first-year experiences, and students' perception variables. The second, a logistic regression, sought to predict second-year persistence as a function of those variables and first-year grade point average. The same ordering of variable sets used in the discriminant analysis was employed in both analyses. Logit regression was utilized in the second equation because the dependent variable, persistence, is a categorical (1,0) variable. Unlike the first stepwise regression whose parameter estimates can be understood to describe how a change in an independent variable relates to a change in the dependent variable (i.e. grade point average), one interprets parameters in a logistic regression as specifying how changes in an independent variable increase or decrease the likelihood of persisting onto the second year. The results of these analyses are presented below in Tables 4-39 and 4-40. As in the discriminant analysis, only those variables are shown that are significant at the .10 level.

Looking first at the stepwise regression on grade point average (Table 4-39), it is evident that both effort (hours studied) and participation in the Freshman Interest Group influence first-year performance. And this is the case even though there is no indication that students in FIGs spend more time studying than do students in comparison classes (Table B-104). First-year grades are also related to parental educational level and involvement with other students. In the former case, the relationship is positive, whereas in the latter it is negative. Since father's education can be taken to be a proxy for social class, it follows that student social class background influences performance independent of effort. The relationship, though significant, is far from sizable. Finally, the negative relationship between student activities suggests that students who are more involved with other students, other things being equal, have slightly lower grade point averages during the first year.

TABLE 4-39

STEPWISE REGRESSION ANALYSIS ON FIRST YEAR GRADE POINT AVERAGE FOR FRESHMAN INTEREST GROUP AND COMPARISON CLASS STUDENTS

Variable	Std. Parameter Estimate	Partial R-Square	F-Ratio	Prob > F
FIG	0.170	0.036	15.678	0.001
GENDER	0.136	0.008	3.476	0.063
FED	0.136	0.018	8.147	0.005
HSTUDY	0.221	0.059	24.788	0.001
WRITING	0.093	0.006	2.886	0.090
STUDENT	- 0.130	0.018	8.235	0.004
PERSONAL	- 0.126	0.009	4.039	0.045
ENVIRON5	0.139	0.008	3.647	0.057
ENVIRON6	0.115	0.008	3.782	0.053
GAIN	0.139	0.009	4.266	0.040

Model R-Square = 0.224

where:

FIG	= member of a Freshman Interest Group.
GENDER	= gender.
FED	= father's educational level.
HSTUDY	= hours per week studying.
STUDENT	= student activity factor score.
WRITING	= writing activity factor score.
PERSONAL	= personal activity factor score.
ENVIRON5	= perceptions of campus climate.
ENVIRON6	= perceptions of oneself.
GAIN	= perceptions of intellectual gain.

Turning now to the logistic regression equation on persistence (Table 4-40), we find that participation in a FIG is again a significant predictor of persisting into the second year of college. In this analysis, gender, involvement in library activities (LIBRARY), perceptions of other students (ENVIRON1), and perceptions of classes (ENVIRON4) also predict second-year persistence. In other words, students in a FIG, males, students who spend more time involved in activities in the library, and those who see their peers and their faculty in more positive light are more likely, controlling for other attributes, to persist to the second year of college.[2]

[2] The difference between these results and those in the discriminant analyses is at least partially a reflection of the differing assumptions these methods make about the multivariate distribution of variables used in the analyses. Unlike discriminant analysis, logistic regression analysis make no assumption about

Noticeably the variables of fathers educational level (FED), hours studying (HSTUDY), writing, student and personal activities (WRITING, STUDENT, PERSONAL), perceptions of campus climate and oneself (ENVIRON5, ENVIRON6), and perceived intellectual gain (GAIN), which predict grade point average (Table 4-39), are not significant in this equation. Presumably, their effect on persistence is largely taken up by their direct impact on grade point average.

One has to be cautious, however, in trying to interpret these results. The difference in persistence between the two groups is small and the results of the equation, with the exception of the relationship between membership in a Freshman Interest Group and one's gender and persistence, are less than robust. Nevertheless, the trend of the findings serve to reinforce the importance of peer relations and the social context of student life at the University. The more one sees other students as supportive, friendly, and involving, the more likely one is to return to the University even after controlling for other attributes, experiences, perceptions, and first-year performance. As we shall see in the qualitative component of the study, issues of social relationships with other students are central to student concerns during their first quarter at college.

TABLE 4-40

LOGISTIC REGRESSION ANALYSIS ON PERSISTENCE FOR FRESHMAN INTEREST GROUP AND COMPARISON CLASS STUDENTS

Variable	Parameter Estimate	Standardized Estimate	Wald Chi-Square	P > Chi-Square
FIG	2.728	0.384	5.143	0.233
GENDER	3.635	1.003	6.054	0.014
LIBRARY	1.599	0.441	2.758	0.097
ENVIRON1	0.985	0.719	2.978	0.084
ENVIRON4	1.084	0.722	2.959	0.085

where:
FIG = participation in a Freshman Interest Group.
GENDER = gender (1 = male, 0 = female).
LIBRARY = library activities factor score.
ENVIRON1 = perception of other students.
ENVIRON4 = perception of classes.

the normal distribution of variables.

Quantitative Analysis: Summary

The pattern of findings in the quantitative analysis provide support for the notion that participation in the FIGs has a positive, but modest, impact upon both achievement and persistence. In all analyses, membership in a Freshman Interest Group remains a significant independent predictor of both first year grade point average and persistence into the second year of college. Results of the descriptive analyses further suggest that participation in a FIG also shapes students perceptions of the institutional environment, particularly of other students and one's classes. Strikingly, these variables are also significant independent predictors of persistence. In this sense then it can be argued that some of the impact of the FIGs upon persistence is largely "social" in nature. That is, its impact upon both performance and persistence arises out of its influence on how participants come to view the environment around them.

The same cannot be said, however, of participation in writing link FIGs. Within the confines of the data available to us, participation in these FIGs appears to alter a range of educational behaviors that, in turn, may eventually impact upon college performance and persistence over the long-term. More than any other type of FIG studied, these FIGs appear to yield the most positive findings. Of course, it is these FIGs alone that provide a distinctive first-year academic experience that directly links academic work and social relations across course boundaries. It is a linkage, as we shall see in the following section, that appears to underlie much of their positive impact upon the first year experience at the University of Washington.

QUALITATIVE FINDINGS: LINKING SOCIAL AND ACADEMIC EXPERIENCES

NOTE: The following section is writing in the "voice" of the researcher, Anne Goodsell.

The Context

The value of conducting a qualitative case study is that it provides considerable detail about the context of the study and about the study itself. Accordingly, the results of a qualitative study of student learning experiences include details about the time spent in and out of class, and descriptions of the variety of activities available to students as a part of their life on campus.

The focus of our research was on the Writing Link FIG experience--including classes and the weekly FIG meeting. The focus of students, however, was on many things other than the FIG. My initial questions to students were along the lines of "tell me about a typical day for you", or "how are things going?" Their replies included <u>everything</u> that they were doing, of which classes (and therefore the FIG) were only a small part. Students talked about many things without needing much persuasion from me--what it was like to be at a large university, how their classes were going, what grades they were getting, what activities they were doing, what they wanted to do when they graduated, what influence their families and home life were having on their college experience.

The things I specifically had to ask about were what they had been doing during their weekly FIG meeting, how their FIG experience was influencing their classroom experience, and what they thought they were learning in their classes and through the FIG. It was not surprising to me that students would not talk about their learning without some prompting, but it was surprising that they would neglect to tell me about their FIG meetings. For example, after conducting a phone interview with a student, I realized that she hadn't told me anything about her FIG meeting and I hadn't asked. That demonstrated to me the comparatively low level of salience that some parts of the FIG experience had for students. Classes, assignments, tests, and social lives were salient for students. While we centered our research questions on a few aspects of their academic experience--the FIG meeting, time spent in class interacting with peers, the writing process--these things were not central to the students' everyday experience at the university.

For example, I talked to Heather about the blurring of classroom life and out-of-classroom life that might have occurred within FIGs, when students became friends with people in their classes. A portion of our conversation is below:

> Anne: If you go to class, and you have friends in that class, do you talk about class stuff when you're not in class? Is that sort of how it starts to blur?
>
> Heather: I think so. I know with our FIG, when some of us would go down to [the snack bar] between classes, I'd say it's probably 50-50 talking about class and then talking about other things that are on in your life. Just because, I mean, classes are what's going on in your life. But then, there are other things. You know, you do talk some, you get together to study, and you're talking about classes.
>
> Anne: When you get together with people in the evenings, people in your hall or in your suite, how would you categorize the kinds of topics that you might end up talking about?
>
> Heather: I would say that probably 20 percent of the time is classes. And that just includes, "how's it going?" "what are you doing?" "what do you have to do tonight?" "how's your classes going?" and just that kind of general stuff. Maybe asking people questions for help. But then the rest, you're living with the people. . . we do a lot of things together outside of just classes. That we talk about. . . . And just stuff that's going on, just 'cause we tend to know everything about each other. We can talk about it.

Heather recognized that classes were going on in her life, but that there were "other things". A major part of the qualitative research process was trying to figure out how the FIG fit into the rest of her day, and how to understand in what ways the FIG influenced her experience. Because the structure of the FIG was tied to the structure of classes, students talked about FIGs and classes interchangeably. In this way, the FIG gave students a way to blur the boundaries between in-class and out-of-class experiences, and expanded my ideas of what constituted "academic" experiences beyond those of the classroom.

I have described FIGs primarily in terms of the courses taken and time spent together. This was the way that I first understood FIGs. As I talked to students, however, I came to understand that FIGs have multiple meanings for students. Students sometimes talked about their FIG in terms of the people in the group. Heather, for instance, talks about the FIG as the group of people and the personal connections that she was able to make. Other students talked about the courses they were taking as "the FIG". For example, the FIG was a collection of courses

that were easy to register for and which filled a distribution requirement. Or, the FIG was a collection of courses across which topical connections could be made. The phrase "The FIG meeting" referred to the weekly meeting with a Peer Advisor.

These different meanings that students made of the term "FIG" are important because they point the way toward understanding the different things that FIGs did. They also highlight an important aspect of the context within which the FIGs operate, namely that students days, as are Heather's, are occupied with much more than classes and homework. They are also comprised of peers and friends, living arrangements, and social activities to name a few.

The context in which the FIGs operate is important to understand because it provides a type of baseline against which comments about the FIGs can be understood. It is important to know that students do not think of FIGs only in terms of what classes they are taking. Students also think of FIGs as the people in them, so that when I asked one woman how her FIG was, she replied "you mean, the classes or the people?" I came to understand that FIGs were not merely collections of classes, but collections of people as well, and it was the regular contact with the same group of peers more than the continuity of courses that enabled FIGs to have an influence, however small, on the lives of the students.

Having thus described the context for understanding FIGs, I will present the findings of the study in three sections. The first section is about the social dynamics of college. Much of the influence of the FIGs was in the realm of social relationships between students and their peers, and between students and faculty. These were the things that students first talked about when asked about their college experience. The second section is about student views of the classroom experience. The predominant view expressed by students was that large classes, combined with a lecture style of teaching created an atmosphere of alienation, distance, and detachment. Under these conditions, students reacted in a variety of ways, from sitting passively in a classroom to skipping classes. The section concludes with student comments about how the FIGs could alter the impact of these experiences on their behaviors and their views of the campus. The third section, what students say about learning, relates the ways that students thought about their learning process. Within their writing classes and across their other classes, students either valued the interactions with their peers and professors, or valued information that came from the professor. These findings get us back to the tenets of collaborative learning, and therefore reinforce the assertion that collaborative learning strategies respond to the needs of students in ways that traditional teaching strategies cannot.

Social Dynamics of the FIGs: "If it weren't for the FIG I wouldn't have met anyone."

This section focuses on things the students said about the social factors involved in attending college. Students said a great deal about the importance of: 1) meeting and getting to know people on campus, both in classes and where they lived; and 2) being treated as if their actions, feelings, and thoughts were of value. This second theme was true in two ways. Students wanted their Peer Advisors to treat them personally--respecting them as individuals and demonstrating that students' concerns about fitting in and being accepted socially were not trivial. It was also true for the way that students wanted professors and TAs to treat their academic concerns and intellectual efforts. They wanted to know that what they said and thought about their classes mattered to their professors and TAs.

Occasionally students shared with me their thoughts and actions regarding what I will call their social lives--spending time with friends, going to parties, football games, movies, etc., and their involvement with student organizations like sororities, fraternities, or a drama club, for example. It should be emphasized, however, that talk of their social life did not dominate our conversations, even when I prompted students to talk of it. I think this is important because when words like social development or social interactions are used in conjunction with college students, the images that come to mind are ones of drinking, loud music, and sexual activity. While such activities may have been a part of the lives of the students with whom I talked, the "social dynamics" I refer to are the more broad-based, social-fabric-of-our-lives type of things.

The purpose of this section is to make explicit the social context within which the students' academic experience takes place--that things like going to class, studying, and learning are not done in a vacuum. To use a theatrical metaphor, the notions of going to class, studying, and learning are social constructions that include other actors, a setting, and some props. It is the way we set the stage--arranging the actors, the setting, and the props--that helps to determine how the academic dynamics will be played out. To continue with this metaphor, the importance of the social dynamics that students talked about is that they are the behind-the-scenes work that happens before the show takes place. This section, then, will be a behind-the-scenes look at the social dynamics which underlie the students' academic experiences.

The role of social dynamics in the study of Freshman Interest Groups

As a way of beginning my conversations with students, and as a way of getting to know how they spent their time, I asked them to tell me about a typical day. Most students began by telling me how they woke up and got ready to go to classes. The FIGs I studied had three morning classes, so students usually told me what classes they went to and when. Their afternoons and evenings continued with meals, studying, hanging out with friends (including talking, listening to music, and watching movies), intercollegiate or intramural sports or "working out", or participating in a student organization or activity. In a 24 hour day, students spent only three or four hours in class. Although my interaction with students focused on their participation in the FIG and their classes, and although the students had a lot to say about those topics, it was clear that the university experience for students involved far more.

As they talked about what was happening in their classes, students intermixed comments about the social backdrop of the classes--the size of the class, the fact that they knew people from the FIG, who they studied with or how they studied, and whether the class was of interest to them. FIG meetings were held on Fridays, and unless I specifically asked what they did during the Friday FIG meeting, students did not tell me much about it. This puzzled me until I asked a student to tell me about what she did in the FIG and she replied, "you mean, about the people, or in our classes?" For students, the FIG experience comprised the 20 people who went to three classes together, and met once a week for an hour on Fridays. The FIG was the people, not the program, and that distinction is paramount. While my focus was on a program in which students took part, their focus was on the students that the program brought together.

From this understanding that FIGs were the people in them, I was able to make sense of the many socially-oriented things students said. It became clear that students' concerns about who they knew in class and how they felt about professors provided the foundation for their academic experience as opposed to being peripheral to their academic experience. Therefore, before presenting what students said about the academic dynamics of their classes, it is necessary to present what they said about the social dynamics of their classes.

Students Want to Meet and Get to Know Others

One of the biggest reasons for joining a FIG group was to meet people. The way the university is set up it is very difficult to meet people unless you subdivide it into smaller groups.

As I talked to students, meeting people was the predominant reason given for joining a FIG and liking the FIG. Over and over students shared their expectations that the FIG would be a place to meet people on campus and make the large University seem like a smaller place. These expectations were met because the members of a FIG saw each other every day in every class, although FIGs were only one of many ways to meet people. Because the University is the flagship school of the state, most students are state residents and many attended high school together. For some students a close high school friend remained a close college friend (some chose to be roommates), while other students sought out new friendships with people they had never met before.

Where a student lived was also a place to meet people. Students who lived in Greek houses or the dorms reported spending lots of time with the people with whom they lived, while students in off-campus apartments reported more limited contacts with neighbors. Students who commuted from their family homes reported minimal amounts of out-of-class contact with peers. Brian, who commuted from home, said that if it weren't for the FIG he wouldn't have met anyone. Chris, another student who commuted from home, remembered feeling lost on the first day of classes but said he didn't feel bad because he was with a whole group of people who were lost. Jennifer, who lived in an off-campus apartment, said:

> if I was living in my apartment and I was not in a FIG I would be having a hard time socially. I think it's best to have either both [living in a dorm and being in a FIG], or one or the other. By living in a dorm you're living with people,... you see them every day, and so you're making friends that way. Being in a FIG is very similar.

People who lived in dorms or in fraternities and sororities reported that they met many people through their living environment, but they too expressed a desire to meet people in classes. Mike lived in a fraternity:

> I thought I'd meet people in my classes, because there are all these other people, ... but there's just too many of them, and you just don't meet people that way. So it turned out that these people [in the FIG], you spend all this time with, you see them every day, and you can't help but to get to know them.

At the end of the quarter students reported that they felt more comfortable going to large lectures knowing that there was a group of people with whom they were familiar. Jennifer put it this way:

> I can't imagine not being in the FIG, I really can't. I would feel so lost. I mean, my history class has about five hundred people in it, and going into that class on the first day by myself completely alone--I would have peed my pants! But having somebody to go with you would make things so much easier. And next quarter, I'm ready [to go into classes alone.]

The comfort of knowing people in classes the first quarter was not the only reason students gave for wanting to meet people. About a third of the students talked about anticipating a long-term payoff from their participation in the FIG. Because the FIGs were organized around an academic major or an academic interest, these students talked about the benefits of knowing students in future classes. One student said "these are probably people that will be here as long as I will be and will probably be in some of the classes I will be in later on." Jeff said, "[the people in the FIG] want to major in business, and I'll probably have them in my classes. So when I do walk in the business school, it won't be like I don't know anybody. I'll see someone I know, and that's good."

Even negative comments about the FIGs support the idea that students wanted to meet people; in fact, students expressed disappointment if that did not happen for them. George, a student who lived on a freshman floor in a dorm never felt like he made a connection with anyone in his FIG. At the end of the first quarter (and the end of the FIG) he said, "I didn't find myself just dropping right into the ... group of people that were like the central core.... I feel really alienated, and the FIG didn't really help this all that much because I was already alienated by my FIG." George was finding friends through his roommate, and through some involvement in a musical group on campus, but he was struggling to find people with whom he could talk about intellectual matters. John, a student who commuted also was disappointed by the lack of connections he made within his FIG or with other students in his classes. He felt that because he commuted and most of his FIG lived on campus (in dorms and in Greek houses), he didn't have anything in common with them, so he didn't talk to them very much. Other students also mentioned that various cliques formed during the first quarter which prevented them from feeling comfortable with everyone in their FIG.

My point in recounting the variety of ways to meet people on campus is that overall, the students talked about their desire to meet and get to know people. This desire was expressed by males and females, students living on campus in dorms or Greek houses, and students commuting from apartments or home. They had hoped that the FIG would be a way to do that within the context of an academic environment. That is, an environment that was geared more

towards academics and topics they had an academic interest in than the other means of meeting people that were available to them. The students who expressed a desire to meet people with similar academic interests, or similar majors were aware that at a university as a large as the University of Washington, the act of declaring a major (not usually done until sophomore year) wouldn't necessarily put them in touch with a group of people with whom they felt they belonged. As we will see in the next section, large introductory classes were not places to meet people, and so students found other groups with which to affiliate (informal groups of friends, Greek brothers and sisters, etc.).

Students Want to Be Treated as If Their Actions, Feelings, and Thoughts Are of Value

In our conversations about classes and FIG meetings, students talked a lot about their professors, TAs, and FIG Peer Advisors. They told me about what they did during their Friday FIG meetings, what they thought of those meetings, and the kinds of feedback given to them by their Writing Link professors. In this section I have collected examples of the ways that FIG Peer Advisors, professors, and TAs demonstrated that what the students thought, felt, and did mattered.

Most of the students I talked to were members of three FIGs: Ancient Civilizations, Communications, and Psychology. The Peer Advisors, respectively, were Leslie, Laura, and Kristen. Laura and Kristen demonstrated in various ways that their students mattered. For example, Laura took a group picture of the FIG at the end of the quarter. She also gave out awards she had made (she designed and drew certificates for people) and gave out candy at Halloween. Kristen baked cookies for her last meeting, and said as she handed them out, "if they don't taste good I don't want to hear it, because I don't bake very often." While Kristen's tone may have been grumpy, her message was that she had gone out of her way to do something for the group. Another way that Kristen demonstrated her caring for her students was that she gave an optional assignment for those who had missed some meetings (so they could still get credit). Kristen also called her students to remind them that they were going out for pizza for lunch, and to tell them about the play they went to see.

Comments about Kristen and Laura indicated that students saw them as approachable and felt good about having them as Peer Advisors. Students in Kristen's FIG told me that they called her to ask for help, and she reported that they told her things they were worried about--grades, tests, and having to choose a major. A male student said, "she'll talk about things we want to talk about. She seems to be interested in what we're interested in and not what we're supposed

to be doing for the program." I observed something like this during the second week of classes. Kristen had planned to talk about study skills with her FIG, but as she mentioned various study strategies (getting enough sleep, planning rewards for themselves) she and the group went off on tangential topics such as watching TV and places to go around the University area. Kristen later reported that the next week she talked more about study skills. Students did not see this as a weakness in a Peer Advisor, but as a strength. Another male, describing characteristics of a desirable Peer Advisor, said "you need to have some really dynamic people, some with a sense of humor who are going to realize that there are some times you've gone to all these classes all day and you just want to have somewhere to come complain to each other." FIGs, led by approachable Peer Advisors, could be such a place. As one student said, "she made us feel like we could be ourselves."

Leslie's FIG was a contrast to these examples of positive interactions between FIG members and their Peer Advisors. Kathryn's story about her first interaction with Leslie is the most dramatic example of a lack of caring, although not the only one I heard from students. Kathryn told me, "the first day that we walked in our Peer Advisor was making fun of me and my friend because we were in a [sorority] house. . . . She pegged us right off." I observed the FIG meeting during the second week of classes, and Kathryn said something about the student newspaper always "slamming" the Greeks. Leslie replied, "well, if the Greeks didn't do things that the newspaper could slam them about, then they wouldn't have anything to write." Leslie clearly was against the Greek system, and Kathryn, as a new pledge, was all for it. I was not surprised to learn, when I visited the campus at the end of the quarter, that Kathryn and her friend had stopped going to FIG meetings. For them, the atmosphere that Leslie established was less than welcoming, it was hostile.

The fact that this tension arose over perceptions of Greeks and non-Greeks is not incidental. The characteristic most noted by all the students with whom I spoke was whether or not a person was affiliated with a sorority or fraternity. Cliques that evolved in the FIGs I observed centered around Greek affiliations and were of concern to the Peer Advisors. Students in the Greek system gave academic support as one reason for joining it, citing the mandatory study hours for pledges, test files, and availability of tutoring from upperclass students as ways that their academic experience would be enriched. These same students later said that some of the academic support systems were not as effective as they had hoped. Sometimes the designated study time conflicted with other time commitments, or fellow pledges were not in the same courses and therefore could not help each other. One woman said that she needed to study with a fraternity pledge because they had a group project for their class but couldn't because he had to study with the other pledges.

Students outside the Greek system talked about the Greek's emphasis on parties and their exclusionary tendencies. Whether or not the Greek system was beneficial to students' academic pursuits, the fact that so many students joined a house demonstrates the desire to belong with a social group, and the need to break down the large university into smaller units.

Other students reported tension between Leslie and the FIG. When the FIG members told Leslie that they were worried about grades, she told them "it's so easy; I got a 4.0". Leslie gave no indication that she had listened and heard their fears. Brian, a non-Greek student said that he didn't know about registering for Winter quarter classes until the day before registration began, and then it wasn't from Leslie; she talked to them about it after they had registered.

I asked Jennifer what she would have liked to learn from Leslie. The following quote is part of her reply:

> At the beginning of freshman year there' so much stuff that we don't know. You have your questions about specific things, but there are so many things that you don't even imagine exist. And she told us about some things basically with pamphlets--"read this, read this, if you want to learn about this go here." ...But you want to listen to her experiences, and what she'd gone through, and who she knows, and who's a good person to talk to, and who's a good professor, who's not. Practical things. Inside stuff that nobody else would be able to give, that you're not going to get from any pamphlet. [Leslie] didn't bother.

What Laura and Kristen seemed to generate was a sense of approachability and respect based on their actions and personalities, rather than relying on the "position power" of the job as did Leslie. All three Peer Advisors began their meetings by asking how the students' week had gone, but because Leslie's group didn't feel comfortable with her they did not participate in discussions with her. Kristen and Laura, on the other hand, shared stories from their freshman years including times that they got lost, or didn't know what to do or how to get something accomplished. The human element was absent from Leslie's approach, and it was missed.

To return to the relevance of the students' social concerns for their academic experience, it was not clear to me at first that the discussions held during the Friday FIG meetings had anything to do with their academic experience. In the examples above, students complained to each other about TAs and assignments, and worried together about grades, but they also talked about campus activities such as football games and Greek sponsored events, and talked about

shopping and movies. In retrospect, I believe the value of the Friday FIG meetings was that students could talk about the *process* of their classroom experiences, and in doing so, become socialized as college students. No time was spent in their courses talking about strategies for taking tests or how to get around in the bureaucracy of the university (some Writing Link classes were an exception to this), so the Friday meeting became the place to do that.

Again, this ability to process their experiences may have been especially important for students who commuted from home and did not have the informal time in dorm rooms or Greek houses to discuss these matters. The key factor seems to be that having a place to discuss the academic process--grades, assignments, professors and TAs--was an important antecedent to students feeling integrated in the classroom. Having people they knew in their classes, and having the opportunity to brainstorm or problem-solve with an upperclass student who had gone through the experience was important to students' feelings of confidence in the classroom.

In Academic Matters, Students Want to be Treated as if Their Actions, Feelings, and Thoughts are of Value

Writing Link TAs and professors showed they valued students' actions, feelings, and thoughts in a variety or ways. In one Writing Link class a student responded to the comment of another student by saying, "well, I agree with what he said." The TA, Charles Gordon, interjected to say, "you mean Chris?" The student replied, "yeah, what Chris said" and continued his answer. The TA paid attention to the interpersonal dynamics of the classroom, and set an example by recognizing the students by name, not as just another nameless student among 19 others. As will be noted in a following section, student's fears of being faceless, nameless, numbered bodies were far from irrational. This instance of Charles recognizing a student by name and prompting other students to do the same stands out as an exception to the experience of most students in the classroom.

In another class, the professor asked students to review some art history articles. She held up a dictionary she had brought with her, offering it for their use, and she said that she had needed to use it while reading the articles. I interpreted that as a demonstration to the students that she was approachable; they could ask her for help because she needed help now and then too.

Charles Gordon was talked about in very positive terms by everyone with whom I spoke. Kara said, he "tries to get you to think about it [your paper] rather that telling you right off the top what he thinks about it." George liked the way Charles treated them. "He doesn't treat us like we're children [when we're all talking at once] and say, 'you're disrupting the class.' He treats us like we're adults [by saying], 'your talking is disrupting whatever it is that we're trying to get accomplished here. Why are you doing it?' And that's nice. I like that." By pointing out to the class what their behavior was and asking them to think about it, Charles was offering them an opportunity to reflect on their group process. This may be one reason why students said that Charles would make a good FIG Peer Advisor--he was seen as approachable, knowledgeable, and interested in how the students were doing in their academic transition.

Brian said of Charles:

> he's really helpful, and he obviously knows what he's talking about. Ancient Civilization's not even his specialty, but he knows what he's talking about. He is a hard teacher,... he grades hard, but I'm learning stuff that I never would have learned like from a TA, or in high school.... I learned how to use the evidence from the book correctly to back up my opinion.

Brian's comment is noteworthy because it points out that what is important to him is not the position or the title of the person in the front of the room, but the quality of the interaction. Brian knew that Charles was a TA, but he said that he learned things from Charles that he never would have learned from a TA. What was important to Brian was that Charles knew his stuff, and that he was able to teach Brian a skill he had not had before.

Examples of Writing Link instructors that were not positive for the students still support the assertion that students want to know that some academic thing that they are doing matters. John was disappointed because midway through his appointment with his Writing Link TA, she said she had to leave for lunch. He thought they had 45 minutes to meet, and they only spent about 15 minutes.

Students who had Ted Milburn as a Writing Link TA were disappointed with their class and felt like they didn't get much out of it. Heather said that when he tried to engage the class in a discussion she and other students were unresponsive. I observed one class where this was so. Ted asked students what kind of feedback they would like to receive on the drafts of their papers, and this dialogue followed:

Mark: I like it when the comments are in person because then the person could explain to me what they liked and didn't like about the paper.

Ted: Well, that's all well and good, but that's not possible because you're only going to get written comments.

Mark: You didn't say if it was possible or impossible, you know, it's an idea.

Ted: Yeh, you're right, that is a good idea. But it's not going to work in this situation.

[Note: the structure of the Writing Link classes was such that students did get verbal feedback from their peers.]

Finally, after Ted had let a number of suggestions go without responding positively to any of them, Beth said, "you know, you're asking us these questions and we're giving you answers and they don't seem to be what you want so why don't you tell us what you're looking for." This is an excellent example of the importance of knowing the context from which a quote is taken. If Beth's comment were read alone, my reaction would probably be to marvel at the dualistic nature of her response (teachers, as the authorities, have the answers, they give them to students.) However, read in the context of the prior exchange between Ted and Mark, Beth's comment shows her frustration that even though the students are trying to respond to Ted, he doesn't acknowledge their ideas or efforts. While the conversation is about academic matters, it is the students' interpretation of the social "setting of the stage" that is equally important. Because of this interaction and others similar to it, the students perceived that Ted was uninterested in them, and they felt that they got very little out of the class.

Perhaps another way of phrasing this theme of valuing or mattering would be to say that students wanted what they said or thought to be considered in a serious manner, and have their concerns taken seriously. This is not to use the term serious in a way that suggests stuffiness or somberness. Rather, students did not want their concerns or thoughts treated frivolously or passed off as inconsequential, sophomoric, or trivial. They wanted someone to listen to them but not judge them; they wanted someone to challenge them in the classroom in a way that provided support as well. They wanted someone to demonstrate that he or she cared about what the students thought. Brian told me this about his Writing Link TA: "there's another thing they tell you in high school, 'oh they don't care about you at all' and stuff. It seems like he cared. For one, he cares about what we're writing about. Also, he likes to help us do a good job."

When the students said what they liked about their Peer Advisors and their Writing teachers, words like "care", "treating us like adults", and "listening" were used. The kinds of things that students told me they liked were things that personalized their interactions, let them know that the Peer Advisor or Writing Link TA was interested in them and interested in their doing well, and did things to show it.

Reading the Book and Taking the Test: Student Views of the Classroom Experience

In this section, I present data about students' views of the academic experience. This includes things like going to class, listening to the professor or TA, taking notes, doing reading and assignments, and possibly interacting with the professor and fellow students in or out of class. It is important to remember, however, that things of an academic nature always take place within a social context. The interactions between the various "academic" and "social" elements of a college experience make for a complex mixture which becomes hard to separate. Therefore, at times I will refer to other sections as a way to integrate these elements.

I begin with a section on academic dynamics by presenting examples of experiences that students encountered in the classroom. This is information that students talked about when I asked them to tell me about their days or about their classes. I report their comments because they highlight an important reality of students first year classroom experience, one that leads to the thesis that large class sizes and teaching styles which rely on lecturing combine to make the students' first year academic experience one of alienation, distance, and detachment.

I will provide support for this thesis by first presenting information about large classes that explains these feelings of distance and detachment. Then I present information about teaching styles, especially lectures, which contributed to student feelings of distance and detachment. Following that is information describing how these feelings are manifested in student behaviors in and out of the classroom.

After describing the way students talked about large class sizes and teaching styles (and their interactions), I share students' comments about how Freshmen Interest Groups altered the effects of their classroom experience. These examples, together with those from other sections, can help us to understand why students almost always said that they would join a FIG again if they were to repeat their Fall quarter.

Large classes create feelings of distance and detachment

A number of factors combined to create for students feelings of distance and detachment from professors and their peers in large classes. Foremost among these was the sheer number of people in their classes. Students reported a variety of class sizes ranging from 20 to 700 people. Small class sizes of 20 were a function of the FIG format, and only those new students who participated in the FIG program were in such small classes. Even those students had only one class of this size; their other classes ranged from 150 to 700 people. The effect of large numbers of people on students' reported willingness to participate in class was chilling, as will be evident in the examples throughout this section.

The physical facilities necessary to accommodate such large numbers of people added to student feelings of distance. The set-up of large classrooms made for a situation where students and professors were physically distanced from each other. This resulted in feelings of psychological distance (anonymity) or, as the following example illustrates, feelings of detachment from what was happening in the class. Two women told me about how hard it was to pay attention in their Sociology class, which they estimated to have 700 students. "[The lecture hall] has a balcony and you can't even see the professor. And yesterday his microphone stopped working so you couldn't even hear him and the lights were out so you just sort of lean back and fall asleep. It's a really comfortable place, you can sleep a lot." It was common for students to report being unable to see and/or hear the professor in such large lecture halls. They felt like the professor had no knowledge of them as individuals and would not notice their absence. Therefore it was easy for them to talk, daydream, sleep, or not go to class at all.

In addition to feeling distanced from professors, students felt alienated and detached from each other. Because of the large size of their classes, students' chances of meeting people or even consistently sitting near the same people every day were slim. Students felt as if they never made personal contact with their peers in large classes, so they didn't feel any obligation or peer pressure to attend. Students' experiences in their small writing classes and FIG meetings provided striking contrasts to the anonymity of large classes, as will be demonstrated later.

Student feelings of detachment and alienation from each other were compounded by the difficulties students faced in meeting and getting to know other students in large classes. The issue of meeting and getting to know other students was explored in the previous section of findings, but the social aspect of the issue is inseparable from its academic aspects.

To say that large classes are not a place to meet people may sound extreme, even nonsensical. With anywhere from 100 to 700 people meeting three times a week, how would it be possible not to meet people? This student, at the beginning of her freshman year, explains: "When you are in a lecture hall of 400 it's hard meeting people because you always sit in a different place with a different person and when class begins you don't talk." Kathryn, commenting at the end of the Fall quarter, concurred: "I've never met anyone in class."

Heather described the closest thing to meeting people that I heard. At the end of the Fall quarter I asked, "have you met other people in the lecture?" She said:

> "Not really. There's one girl I met at orientation this summer that just happened to be in my Communications class (150 people). And so I see her and a bunch of people from the FIG, but other than that, not really. . . . You recognize people as they sit around you day after day after day. I don't necessarily talk to them or anything, but you're all familiar with each other."

Teaching Styles Contribute to Students' Feelings of Distance and Detachment

Regardless of class size, those students who go to their classes may have a hard time paying attention, taking notes, and understanding the material. One student told me that she had dropped a course because she had gotten behind with the material; she doubted her ability to take good notes -- she left the University at the end of that quarter. Other students did not share with me doubts about their abilities, but gave other reasons for poor notes: they didn't know what to take notes on because professors rambled or the lecture was confusing, they couldn't understand the professor (either his explanation or his English), and the professor was boring.

Students described their difficulties in the following ways. Said Mark, "I just can't take notes in that class. He rambles and stuff. And it's either I write down everything, or I write down nothing. And I would rather write down nothing, because I'm not going to write down every word he says." He reports that this strategy works for him ("I got an A- on the mid-term") because he buys notes from a classmate and reads the book. Chris said "there are some [professors] who just can't get their point across, or they will contradict themselves, or confuse you more than it is worth going to the lecture." Heather concurred: "[our Writing teacher, Ted] doesn't speak real clearly, he speaks very abstractly. I just stop listening because he keeps talking and I feel like he doesn't care if we understand the information or not."

Complaints about being unable to understand professors and TAs because they spoke English with accents were common, too. Beth gave an optimistic view about professors who were hard for her to understand: "my Political Science professor spoke pretty bad English but the TA spoke pretty good English, and now this quarter the Economics professor speaks English well, and the TA doesn't. . . . As long as one of them speaks English okay then you can get the information that you need to." Not all students were as tolerant as Beth, however; one group insisted that their professor was lecturing in Korean, while other students reported less extreme difficulties.

While these reasons for not being able to pay attention, take notes, or understand may sound like lazy excuses, they make sense given that there are other ways to get the same information. The interrelatedness of the problems students report are striking, and sound like a vicious cycle: If you go to class, you may not be able to see or hear the professor, or even get a seat. If you can see and hear, you may not be able to understand what the professor says or you may not understand his explanation. If you don't understand, you can read the book, because the information is usually the same. And if you skip class to stay home and read the book, no one will notice because the class is so big and you haven't met anyone anyway. From this perspective, skipping classes, sleeping in classes, and buying notes are rational responses to the problems encountered in classes.

The Interaction of Class Size and Teaching Style

It is not the size of a class alone that determines whether it will engender passivity and detachment in students. Just because a class is large doesn't mean that it can't be of interest to students. A professor who adapts his style of teaching to the constraints of a large lecture hall can still capture students attention and interest. Nicole gave me an example of a professor who teaches a class of 400 students.

> He has a mike that's attached to him, and walks all around the room, stands up on desks, takes students by the hand and brings them to the front of the room to demonstrate a point, and memorizes everyone's name. He knows about your personal life too, like making decisions and making choices, and he really gets you thinking. He's constantly relating [the information] to our personal lives.

Nicole's story is like the exception that proves the rule, however; it is because such a class is so unusual that it stands out and is worthy of mention. It is one of a few examples that students gave me of being interested in a lecture style of teaching. Overwhelmingly, when students complained about being bored in the classroom, feeling as if their presence didn't matter, or not being able to understand the material, they were talking about a professor or a TA giving a lecture.

While the above example is of a large lecture class, it is not the size alone that matters. For instance, small class sizes don't automatically translate into interesting, active exchanges of information that are easy to pay attention to and understand. Heather's writing class was composed of 20 people, yet she felt like the TA didn't care if they understood the material or not. Therefore she was less enthusiastic about the class than she would liked to have been.

Mike, who was in the same writing class as Heather, felt like he wasn't getting anything out of it. He often left the class before the end of the period and a few other students would follow in his wake. Again, the decision to skip classes was not made solely on the basis of the small size of the group. The interpersonal dynamics of his writing class encouraged Mike to attend classes, but then more had to happen once he arrived in class to keep him in attendance and attentive. Mike felt that his writing teacher was unprepared for classes and uninterested in the students, so he saw no reason to remain in class each day, even though he had made the initial effort to attend.

As mentioned in the previous section on social dynamics, feeling like they were receiving personal attention was important to students because it provided the setting in which they felt comfortable participating in the academic environment. Recognizing the interaction of class size and teaching style emphasizes the complex influences of both within each class. This helps explain why size of the class alone is not a consistent variable in determining if students are active or interested in the class. The professor may act as if he doesn't care about the students or the material, or the content of the class may not be of interest to the student. In these cases, no matter how few students are in the class, the students may be unsatisfied. On the other hand, taking into account the interplay of class size and teaching style helps to explain why students like certain large classes. If the professor presents the information in a dynamic manner, as in the example Nicole gave, or if the professor is seen as approachable after class or during office hours, then those factors may buffer the detrimental effect of the large class size or the lecture format.

How Feelings of Distance and Detachment Were Manifested in Student Behaviors

Students behaved in a number of ways that were directly related to the feelings of distance and detachment they felt in large classes. These behaviors included an unwillingness to partake in class discussions, sleeping in class (mentioned earlier), and skipping classes altogether.

Large classes reduced students willingness to participate in classes. This theme was discussed by Mark and Lee when I met with them together, near the end of their first year. They talked about asking questions in large classes and contributing to discussions, and I quote them at length:

> Lee: I was thinking that one of the ways that I could start learning more was maybe raising my hand a little bit more. Like in high school, I didn't care what anybody else thought, but now I'm a little intimidated, you know, cuz some of the classroom sizes are, or you don't want to raise your hand because [there will be] some guy in the back saying, "what a dork. What kind of a question is that?" . . . . I always propose a question in my mind and I always picture myself as the person in the back calling me a dork. Then I go, "why would he call me a dork if I ask this question?" I felt well, because I'm stupid, okay! So I won't ask it; I just let it pass by.

> Mark: I always think to myself, if I ever have a question, the main reason I don't like saying them out loud is not because of "what if it's a dumb question?" Because I honestly think no one really cares that much to come up to me and say, "You know, that was a real stupid question you asked in class." . . . . But I don't ask just cuz my voice gets really quiet when I'm in those huge rooms, and I don't want to sit there for five minutes repeating my question louder and louder so [the professor] can hear it. So, I figure that's what quiz sections and office hours are for.

> Lee: Well, one of the things I notice like in my Geology class is that there are about 200 or 300 people in there. When [the professor] says, "are there any questions?", the chances of nobody having a question, out of 300, it just kind of strikes me. I'm sure there's people wanting to raise their hand but they just don't want to. I mean, there's questions in your mind and questions you want to ask but I don't know, I just get kind of intimidated by a class of that size.

Mark: When I'm in class, and I have a question, most of the time I figure I can get the answer if I wait and let it sink in--things will become clearer. Or maybe--this is something I say to myself all the time--in a few minutes it'll all make sense. And a lot of times that's true. . . . [Another] reason why I don't say a lot in class is cuz I keep thinking, "well maybe that just puts me in the same class as these people [who ask dumb questions that take up time]" . . . . Unless I'm totally sure of my question, I have to think, is this relevant, is this important enough to waste 300 people's time?

Lee: True.

Mark: Plus, in my high school, I was in a special program with the same people for four years. [By] senior year you have no problem going through arguments with these people because there's mutual respect, and you know where to draw the line. . . . And you don't know that in huge lecture classes. I don't feel prepared enough to go up against some college senior. . . . I don't want to embarrass myself.

These students raised the issues of large class sizes and the related feelings of insecurity which stemmed from not knowing who the other people in the class were and how they should treat each other (with respect or with ridicule). Mark's hesitance in asking questions in class was magnified by the fact that there were so many people in the class. That is to say, his reservations with asking questions would be present in a class of 30, however, he is that much more reluctant to ask a question in a class of 300. The quotes of students in the previous findings section about their feelings of comfort at seeing the familiar faces of FIG members in large lecture halls speak to this issue directly. In order to learn, people need to admit what they don't know, and who wants to do that in front of a couple hundred strangers?

The feelings expressed in the conversation between Mark and Lee seem to go beyond alienation from peers and distance from the professor. They are talking about taking a risk--by raising a hand, asking a question, and standing out in class. These seem to be more than feelings created by an inability to see or hear a professor. Identity formation within one's peer group is a major developmental stage (Erikson, 1964) characteristic of people in the years of late adolescence or early adulthood. Consequently, any activity that will make them stand out in front of their peers is likely to produce great anxiety and be considered risky. If going to a class and trying to participate (by way of asking a question or entering into a discussion) is an activity that

involves some risk, then it makes sense that students avoid these feelings by skipping class. It may be a bit like going to the doctor's office for a shot. You know it's going to be good for you in the long run, but unless the doctor takes care to put you at ease, the process is painful and one to be avoided.

One woman explained her unwillingness to participate in class this way: "I have found that education is very personal. It is a way of expressing who you are. With such an emotion at stake it is difficult to trust something so personal to such chaos. [If] my teachers were more respectful of my thoughts and me as a person I [would be] more willing to participate and do so sincerely." She echoes a theme of the previous findings section--that she would like the feeling of security that comes with trusting her professors before she risks revealing anything about herself--but in large classes she never feels comfortable enough to do so.

Skipping classes. One FIG Peer Advisor gave some study skills tips to her students. The first thing she said was "Go to class. I can't stress that enough. You can buy notes from the class but it's not the same thing as being there." This was the only positive comment I heard about going to classes. As it turned out, many students didn't take her advice. They skipped classes regularly. Skipping classes was something talked about by many students, and they gave many reasons for it. The anonymity of large classes was one of the main reasons given for skipping lectures. Classes were so big (they ranged in size from 100-700) that professors and even fellow peers didn't know if a student was there or not. Jeff told me that he skipped his Psychology and Math classes regularly (250 and 200 people, respectively). "I always miss classes, I always skip 'em. . . But I do my homework and I do all my reading. I just look at my syllabus to make sure I need to show up on test day or the day when we turn in assignments. . . . [For] psychology, you just read and you have a mid-term. I usually miss that class."

Another reason given for skipping classes reported by many students reflected a different kind of detachment that was exacerbated by the lecture style of teaching. Students reported that going to lecture and reading the book were different ways to get the same information. Lee said, "all the information is in the textbook anyway. You can just get it by doing the reading and doing the problems...you just don't even have to go to [the lectures]." Beth, who reported skipping fewer lectures than some students, remarked, "for my Communications class, what he says in lectures is exactly what it says in the book. And so, if I don't have time to read the book that week, I don't worry about it too much, because I got it in lecture. . . . I mean, I don't need to learn it twice." Even though she went to lectures, she found the impersonal nature of the lectures disconcerting. "I never had it where the teacher just talks for the whole hour and you

take notes, and you never really talk to him. It's just a set lecture." Mark summed up his feelings about lectures by telling me that he had skipped his Communications class of 250 people that day. As a way of explanation he said, "First of all, it's a lecture class." For him, that was reason enough.

Finally, one student who said that he got more from lectures than he did from reading the textbook, later qualified that statement. I asked "what have you learned here?" He said, "I've learned that you don't have to read everything." "What else have you learned?" I asked. He replied, "I don't have to go to lecture."

It should be emphasized that these behaviors--unwillingness to participate in class, sleeping, and skipping classes--were not unusual. The women who slept in their Sociology class told me about it while they were in another class, and they were unconcerned that the other students could overhear our conversation. This suggests the ordinariness of their detachment. The fact that they told me this during the second week of the Fall semester emphasizes that they were learning this as an accepted norm of the student culture.

University Policies that Encourage Passivity and Detachment

As the students told me about their classroom experiences, and as I observed the ways in which students told me these things, it became clear that the University, by its very structure, encouraged passivity and detachment on the part of its students. For example, the women who were sleeping in their Sociology class were in a lecture hall that seats 700 students. There are a number of lecture halls in that same building; the smallest seats 400. Students know when they sign up for a class that if it's held in that building it will be a large class, and most likely, a lecture format.

Students also came to know that it was possible to skip large lecture classes with the assistance of the University. For example, the campus had a note taking service called Notable Lectures which allowed students to buy notes for their classes. That service paid students to attend classes and take notes which were transcribed and sold to other students. Notable Lectures was a student run organization supported by the student government with a large office space in the student union. It was widely used and recommended by students. It's presence not only reinforced for students the notion that they didn't need to go to class to get the information, but also underscored their belief that the University did not really expect them to attend large classes regularly.

Students interpreted another University policy as also encouraging them to stay away from classes. It was rumored by students that the institution planned on students not attending lectures regularly. The same Peer Advisor who told her students to go to class also told them to get to class early on an exam day because the University overbooked classes by ten percent. She said, "they count on not everyone showing up for all the classes. So get to the test early, then you don't have to sit in the aisles or get trucked off to another room to take the test." A student confirmed this overcrowding by telling me that he got to a test late one day and had to sit in the aisle of the lecture hall; he was not the only one doing so.

Although it may not be the intent of the University to encourage passivity and detachment among students, the effect of the policies noted above is just that. The fact of having a building on campus composed only of very large lecture halls indicates to students that the University sees nothing wrong with classes of that size. The physical constraints, in turn, dictate that students will be at a considerable distance from their professor in the classroom, with the resulting feelings of anonymity and alienation.

It should be emphasized that in most of the examples in this section the students are talking about their experiences in large (100 or more students) lecture classes. Students could recall some interesting lectures and some lecturers who were easier to follow than others, but no student said anything about liking the anonymity of large classes or signing up for a course because it was a large lecture class. Generally students' experiences were characterized by a few factors: 1) it was common practice to sleep in class or skip class, 2) the classes didn't serve any other purpose for students, like allowing them to meet and get to know each other, 3) the information given in lecture repeated information readily available in the textbook or from Notable Lectures, and 4) the information was difficult to pay attention to and understand, for a variety of reasons. One student summed it up by saying "sometimes you feel you're not learning anything; it feels like you're just reading the book and taking the test."

Before turning to the data about the influence of FIGs on the academic dynamics of college, I want to say again that in general, a large percentage of the students were very excited to be at the University. The University of Washington was their first choice and they had always wanted to go there. Furthermore, one of the attractions of the University was its tremendous size. Students felt that they had made "the big time", that this was the place to be. The manifestations of that tremendous size in the classroom, however, were what students expressed disappointment with. It was almost as if they had agreed willingly to run into a powerful thunderstorm and then were puzzled and frustrated when they got wet. In responding to their comments, it may not be enough to say "they knew what they were getting themselves into",

even though that may be what comes to mind.

How FIGS Modify the Experiences with Large Classes and Teaching Styles

Student comments about their FIG groups presented many contrasts to their remarks about their experiences in large classes--the anonymity they felt, the passivity they felt, their lack of interest in certain content, and the lack of caring they perceived. These contrasts were not so much in the structure of classes, because students in FIGs still attended two large lectures, but in the interpersonal dynamics that developed between students, and in some cases between students and their FIG Peer Advisor or between students and their Writing Link instructor. The connections made between students in the groups allowed them to experience classes in ways that they may not have if they were not in a FIG. The development of these interpersonal relationships in the classroom was important because it was against this backdrop of a social network of peers that other academic support mechanisms could begin to operate.

To begin with, the comfort that students felt as a result of knowing a core group of peers served to counterbalanced the anonymity and remoteness of large lectures. The structure of the FIG provided its 20 members with an opportunity to meet repeatedly every day. Students in FIGs automatically were enrolled in the small-sized Writing classes; students who were not in a FIG were unable to register for these classes. In turn, the daily meetings in small classes allowed for a number of informal academic support mechanisms to operate. By informal I mean that belonging to a FIG did not require students to participate in any structured study groups or tutoring. Rather, by being familiar with each other and being in the same classes every day, students in FIGs had an easier time making connections for academic purposes.

FIGs reduced feelings of anonymity and decreased the tendency of students to skip certain classes by providing a group of peers who were known to each other, and who provided peer pressure to attend classes. As noted above, although most students talked about skipping large classes, size of the class alone did not determine whether students skipped it or not. The personality of the teacher, the content of the class, and/or the manner of presentation of material influenced decisions to skip classes, and peer pressure was a constant across these factors. The comments of Jeff and Beth illustrate this point. Jeff said he attended his Writing class because everyone, not just the instructor, would notice if he was missing: "the reason why I go usually is because that's a smaller class; if you're missing everyone knows you're gone. And you kind of feel, that's the only class I really feel obligated, like I have to be there every day, so I show up to each class." Beth talked about classes in general: "[A] nice thing about FIGs is that since

you know everyone, they really encourage you not to skip out. There's more encouragement not to miss classes. If you go to your first class, then there's everyone telling you to go to your second."

An example of how FIGs counterbalanced the anonymity of large lectures classes was that FIG Peer Advisors compiled and distributed phone lists for their FIGs. Many students said that they used the phone lists when they needed to call someone to get notes from a class they missed, needed clarification about their own lecture notes, or if they had questions about an assignment they were working on. This was especially helpful when they were having difficulty understanding the content of the lecture, either because they couldn't understand the language or the explanation. FIGs in these instances made the class seem smaller because people got to know each other and had ways of contacting one another. This, in turn, allowed students to verify or clarify the content of the class with one another as they called each other with questions and exchanged notes.

Another way that FIGs counteracted the anonymity of large classes was that by belonging to a FIG, students could readily find people with whom to study. Although students said that they studied with people from their FIG infrequently, some said that they met to study for major exams. Others spent time together between classes alternately discussing class material, going over homework, and relaxing. In general, students could name one or two people with whom they studied, or whom they would call for help in a particular subject. Many students, however, said that they studied with people on their floor (if they lived in a dorm), people in their Greek house (if they were in a sorority or a fraternity), or they studied alone (both commuters and students who lived on campus said this.)

That students didn't study exclusively with others from their FIG is important because it points out that the effects of FIG participation had its limits. As they were structured at the time, FIGs altered students' academic experience in some ways, but not in others. The academic support mechanisms that developed within the FIG were not a mandatory element of FIG participation, however, every student mentioned them at some point. The mechanisms were informal in that affiliations between people may have shifted throughout the quarter, or a group may have met once to study for an exam, and there were no uniform time demands. What was consistent across the FIGs and within each FIG was that students turned to other members of the FIG at least once during the quarter for purposes of academic support. The FIG provided the opportunity for a network to form, one that could be drawn upon outside of class and beyond the Fall quarter.

This was especially important for commuter students, who may not have had any other network or social group to draw on for support. One commuter student, Brian, reflecting on his first quarter at the University said, "if I wasn't in the FIG group then I probably wouldn't have met anyone." When I talked with him during the Spring quarter his group of contacts still consisted of a few students he had met in the FIG group who then had taken the same History classes that he had in the Winter quarter. They had signed up for the class and the quiz section together; the quiz section allowed them to have contact in a smaller setting within the large lecture. Once they met in the FIG, they were able to maintain contact if they then took large lecture classes and were able to coordinate which quiz sections they took.

The opportunity to meet people (a social desire) within the context of classes (an academic setting) was the only one that many commuter students felt that they could take advantage of. As discussed previously, the small amount of time spent on campus by commuter students limited the number of opportunities for social interactions that were available to them. Since the FIGs were seen to be part of the academic system of the University -- they granted a credit and a grade -- they became an important and academically creditable way to bring together the academic and social desires of commuter students.

The structure of the FIG, with the same 20 people in the quiz sections of the larger lecture classes (lectures met three or four times per week, quiz sections pertaining to those lectures met one or two times per week), provided a setting where students said they were more likely to contribute to discussions. This is important because it goes beyond the comfort that students reported they felt in just going to the larger classes; here they reported not only going to class, but being able to pay attention and participate.

Again, it should be noted that it was not just class size that students mentioned when they talked about discussions in class. The familiarity of the students with one another was an important dimension that was made possible by the structure of the FIG, and mediated the effects of the large lecture classes. A last example is Beth's comparison of a Winter quarter quiz section she was in with a quiz section from the Fall quarter: "There's not as much talking on the part of the students in the quiz section. It's really different because we're not familiar with everyone, like last time in the quiz sections it was just the FIG group."

Students Views of Learning

In this section I present information about what students in FIGs said about learning. "Learning" is a broad concept and in this case students talked about it mostly in the context of what they were doing in classes, especially in their writing link classes. I asked them more questions about their writing link classes than their larger lecture classes because it was in the writing link classes that they were just with the members of the FIG. Furthermore, in the writing link course they were using the collaborative learning technique of peer review. I was curious about how the use of peer review would influence how the students thought about the process of writing and, in turn, learning.

Students talked about learning in a variety of ways. This section begins with the ways students talked about learning in their writing courses. In general, comments fell into two categories: those who valued the peer review process of writing and valued the comments of their peers, and those who only valued the comments of the professor. Students talked about learning in other ways as well. Across their courses, students talked about learning as collecting information, as related to talking and conversations among their peers, and in relation to grades. After presenting descriptions of these views of learning, I look at the comments of students in regard to gender patterns of learning. Finally, I explore issues of control in the learning process.

Before continuing with the comments of students, however, I would like to place their comments in the context of our conversations. As I have noted previously, I began my initial interviews with very broad questions. I asked students how their days were going, how classes were going, what their FIG experience was like, and what it was like to be a first-year student at the University. In subsequent interviews I asked more pointed questions about the FIG experience and the peer review process in the writing link classes. Even in these focused interviews the students talked about many things, and it was necessary for me to ask specific questions about some topics in order to get specific answers. Generally, I was the one to raise issues of learning in our conversations. Students did not talk about the details of the processes used in the classroom unless I asked. They talked about when assignments were due, what tests they had coming up or just completed, and how well they were doing in terms of grades.

The nature of the students' answers is a clear indication of the priorities they placed on thoughts of learning and classroom interaction within the scope of the rest of their lives. More importantly, it is indicative of the level of awareness that is or is not present about the learning process. Surely students are learning many things in the classroom beyond the content of the course. They are learning how to get or avoid attention from a professor in class, how to

develop a network of peers to facilitate getting information from class, and how to get the information in ways other than going to class. All of this, which could be considered "learning" is not typically at a conscious level until someone brings it up and asks us to think about it. Therefore it is not surprising that students did not bring up these examples of learning without my prompting. What remains important is the nature of their responses when I did bring it up. Learning, in terms of developing the ability to think critically, exposure to new ideas, and personal growth, was not foremost in students' comments.

A parallel could be drawn here between the place of the FIGs in the students' overall university experience, and the place of learning in the students' overall academic experience. Just as FIGs were only a part of the overall university experience, a focus on learning was only a part of the classroom experience. As noted in the previous section on academic experiences, some students saw the classroom as a place to meet people, sleep, or something to be avoided. Both FIGs and learning were present and both were important to students, but as outsiders we must view both in the broader context of university life. In that context, FIGs and learning appear to take on much less significance than other aspects of the students' lives.

Learning in Writing Link Courses

Having placed the students' emphasis on learning in the context of their daily lives, we can better understand what they say about it. I focused on the writing link classes to find out what the students said about learning. There, students were discussing information from another course (for example, psychology, art history, ancient civilization), reading additional information assigned by the writing link instructor, and writing papers.

The peer review process used as a part of writing papers consisted of the following steps. Students formed groups of three or four, and brought copies of their rough drafts for the others in their group to read. The others in the group read the draft and critiqued it using guidelines given by the instructor. The guidelines focused on such items as whether the thesis of the paper was clearly stated, whether examples were given to support the thesis, and whether the paper was well organized. Members of the small groups commented on the drafts, then returned them to the authors giving them written and verbal feedback.

As the last step in the paper writing process, each student met with the instructor individually three times during the quarter. The instructor and student together considered the

feedback from the peers (the instructor received a copy of all the feedback) and the instructor's own feedback. Final drafts of the paper were due following the conference with the instructor.

Comments about the writing link classes can be separated into two general categories: those students who liked the process of peer review and said that they valued the comments of their peers, and those students who thought the process of peer review was not helpful, as they only valued the comments of the instructor. Within these two categories there was some variation, but the general tone was consistent with reports of student reactions to other collaborative learning strategies (Bonwell & Eison, 1991; Fiechtner & Davis, 1984-85). Many students resisted the idea that anyone other than the professor could have worthwhile information; therefore they did not like classroom techniques such as discussions and peer review. Other students realized that points of view other than the professor's were valid, and they came to value hearing the opinions of their peers. What follows are student comments that illustrate these two ways of thinking about learning.

Students value the peer review writing process. Students liked a number of things about the peer review process, including the face-to-face interactions, getting feedback from peers and a professor, and developing a sense of an audience other than the professor. I asked Beth about the peer review process.

> Anne: Do you talk face to face about [your papers]?"
>
> Beth: Yeah, we talk face to face, and go through and say what they could fix, and what was really strong that they could keep in there and that kind of thing. And that can be really helpful [if] everybody's rough draft is what they're going to work off of for the final [draft]. But sometimes [it gets to be] Sunday night, and they have to have the rough draft turned in the next day, and so they just scribble something out. And they're not going to go by it at all.... And then you kind of feel like, why should I make comments at all? Because they're not going to use them.
>
> Anne: Right.
>
> Beth: But usually it's pretty good.
>
> Anne: Did you think it was worthwhile to get comments back on your draft?

Beth: Yeah, well, it depends on who's in your group too. Some people just read [the drafts] and say, 'yeah, it's really good'. But I've been with the same group all [quarter]. The two guys that are in there I know, and I know they're really good, and they'll read it and think about it.

Beth's comments at the end of the 10 week quarter reinforce the value of knowing the people in her group. Her judgement as to the helpfulness of her peer's comments were helpful or not was based in part on how much effort the person had spent on it. The small size of the class allowed her to develop trust in the abilities of certain people and she appreciated their feedback.

A comment made by Mark focuses on the personal, face-to-face nature of the peer review process. In response to a question from the writing link instructor he said, "I like comments that are in person because then the person can explain to you what it is they like or don't like or what they don't understand and then you can discuss it with them." While he does not explicitly say that he values the comments of his peers more or less than those of his instructor, he emphasizes the value of explanation and discussion. This suggests to me that the peer review process provides feedback that is more important than a grade because it allows for interaction. As was pointed out in the section on academic dynamics, students found their large classroom experiences to be alienating. Not only did discussions between peers ameliorate the alienation felt in other classes, they gave students an alternate way to think about learning. The peer review process placed the emphasis on the process of writing a paper, and de-emphasized grading the content of the product.

Jeff found the feedback of the peer review process valuable for other reasons. In the following excerpt of our interview, he talks about getting a sense of his audience as people <u>other</u> than his instructor.

Anne: Do you like the [peer review] process?

Jeff: Yeah, I like it. It's helped a lot. Actually, I've learned a lot from that writing class. Actually I don't mind it.

Anne: What kinds of things have you learned?

Jeff: Well, more, more from all the students. You know, try to make sure my writing's that everyone can understand. Cuz I write in my language, to the point where I understand it, but I got to also remember to think about the other people that would be reading this as well. . . .

Anne: Your language meaning slang?

Jeff: No, I mean the kind of words. Word choice. You know, you don't want to make it too sophisticated, and I get like that sometimes, I use big words. . . . Cuz usually when I write, I write to impress the teacher.

Anne: Okay.

Jeff: And I've got also to remember that there's others too who are going to be reading it. And I learned to write in a way that they're going to understand, not to just impress.

Clearly, these students valued interacting with their peers. That made the writing class portion of the FIG unique and valuable to students was working with a consistent group of trusted peers and explaining their writing to an audience of peers and a professor. Membership in the FIGs was what made it possible for students to take these classes which utilized the peer review process for writing papers. In addition, the small class size made it possible for students to meet individually with professors. Students felt like they became acquainted with their peers and their professor. As noted in previous sections, FIG students met and became familiar with each other in their daily classes. The writing class became a place where the social dynamics of the FIG experience reinforced the process of learning from one's peers. Having made personal connections with their peers, students then were able to use those connections to tie the learning process to their everyday experiences.

Other students said that they liked the peer review process, but not for the same reasons. These students liked the structured format of the process because it forced them to spend more time on their assignments. For example, George told me how much he liked his writing class and his writing instructor. I asked him what about the class was so great. He said:

The whole concept [of peer review] was really nice. It's really good because I, like most people, write one draft. Normally, I write one draft and that's it, so it's kind of nice having that structure laid out and having to get some time to work

on that before turning in a final draft. Which means that I got a 4.0 on a midterm paper. Which was nice, and it wouldn't have happened had it not been for the Writing Link, it wouldn't even be close.

Another student, Kathryn, complained about the repetition across her courses, but she liked the fact that by doing the work in her writing class she was prepared for her history class. She also liked that the writing process forced her to put more time into the papers. This is how she put it:

Anne: Some of the papers that you hand in for writing are the same ones that you do for history?

Kathryn: Yeah, we do rough drafts in our writing class, and then we'll have quizzes on lectures, and then they'll have conferences on the rough draft. And then you can turn them in. So it kind of gives me a second chance.

Anne: It sort of forces you to do your writing.

Kathryn: Yeah, and also you're ahead on the readings, the assignment for the material for history.

Anne: That's nice.

Kathryn: It's nice because when you go to lectures you know what they're talking about.

Kathryn is reflecting that the peer review process forced her to do her work for other classes ahead of time. What she doesn't say is that through the writing process she learned more than getting her work done ahead of time. Through the peer review process some students learned that they could be a source of information for their peers, and that they were responsible for getting their work done for their peers (not just for the professor).

From the comments of George and Kathryn, we see that the peer interaction was not the only beneficial aspect of the peer review process. The structure contained in the peer review process was also important in motivating the students to spend more time on class material, and to do so before they turned to it in class. Of course, as Beth said, some students still waited until the night before the rough draft was due to start on it. Even so, that meant students were

thinking about it before they might have under the usual circumstances. The idea of providing students with a structured learning experience is seen as essential by some proponents of cooperative learning (Cooper & Mueck, 1990; Johnson, Johnson, & Smith, 1992; Slavin, 1983). The comments of George and Kathryn seem to support this.

Students value the comments of professors. Not all students saw the peer review process as valuable. Some students saw little value in working with their peers. They preferred to get the comments of professors. John did not like the peer review process because he felt that he wasn't getting help on the things he needed. He complained that his peers only commented about his ideas (as opposed to his grammar), and that their ideas about his paper weren't his ideas about his paper. He felt that their comments took him off the track of what he wanted to say. John believed that because the ideas of his peers were not the same as his ideas, they could not help him formulate his paper. What he really wanted was help with his grammar, and he wasn't getting that from his peers.

I asked another student if he was doing any group work in his courses and he started talking about the peer groups in his writing link course. He said he didn't believe in the peer groups and I asked him why.

> Brian: Because I have my own paper, and I'm planning to do well on it. How am I gonna critique someone else's paper! And they seem to think that, well, maybe you're good at that, critiquing other people's papers. Even if I get comments back, I don't even look at 'em. I just see what the teacher wrote, because he knows. I don't think they know.
>
> Anne: So you're telling me that I couldn't write something and give it to you and say, "What do you think about this?" or "Do you understand this?" and you wouldn't have anything to say?
>
> Brian: Well, no. I'd have something to say, but if I had. If you had a comment about the same thing from a teacher, I mean, I'd probably. . . go to the teacher's comment about the same thing rather than mine. Cuz the teacher's comment, he's the one who's giving you the grade, and he knows what he's talking about better than somebody else.

Although Brian realized that another student might critique a paper in a way similar to that of a professor, he only valued the comments of the professor. And he only valued the comments of the professor because of the grade.

The students quoted in the previous section, especially Beth and Mark, who valued the peer review writing process, talked about knowing the people in their groups. Therefore, they had a basis on which to make judgements about the quality of feedback they were getting from their peers. Perhaps the students who only valued the comments of professors had not sufficiently been a part of the *social process* of the classroom to appreciate the comments of their peers.

I have emphasized the words "social" and "process" here because the theme of valuing peer comments versus professor comments is indicative of a larger issue about the nature of student learning in classes. The classroom is a social setting and student learning is as much a social activity as it is an intellectual one. Furthermore, the learning process is just that--a process. Learning is the combined actions of reading, writing, listening, talking and reflecting that allow information to be given, received, chewed on, digested, and incorporated into a greater body of information.

The peer review process of writing papers, when fully appreciated by students (and when used by professors) facilitates the chewing and digestion parts of learning by extending the writing process beyond a single spitting out of one's thoughts. As students read other papers on a similar topic, listen to the comments of their peers, and have the opportunity to explain why they wrote what they wrote, they figuratively are chewing over their thoughts and extending their digestion time. At the same time, they are participating with their peers in a social setting that values that type of learning.

But not all students want to hear the comments of their peers. Students who only value the comments of professors may focus on receiving information, and bypass chewing, digesting, and incorporating the information. Like a dieter on an "instant" weight loss program, students may think they are getting results--learning--but they may be missing the long-term benefits--participating in the social process of constructing knowledge and retaining that information.

Other Views of Learning

As I examined the ways that students talked about learning, both in reference to their writing link classes and their other classes, other descriptions emerged. Students did not just talk about what they liked or disliked in classes, they also talked about the nature of their learning experiences. Students viewed learning as collecting information, as related to talking, and in relation to grades.

Learning as collecting information. Nicole told me that she learned a lot from a marketing course she took in high school, and she used the word creative. I asked her if she had been able to be creative with her assignments at Western. She replied by saying that she hadn't had much leeway in her assignments, but she attributed that to the content of her courses. The marketing class had involved many new ideas, but the things she was doing in her courses at college involved collecting information. She said, "you just had to use all the information. . . kind of like throw back at the teacher or professor what they've just given you. So they know you understand it or whatever. It was just kind of what you have to do. I don't know." Nicole's comment suggests that as described above, she collected (received) information, held onto it, and spit it back at the professor when he requested it. There is nothing in her comment to suggest that she chewed or digested any of the information.

Nicole and other students described this collecting and spitting back process, but they called it memorization. They collected information and held on to it as long as they needed it--usually until the test--where they threw it back. Then it was gone, with only small portions of it retained. The following is Nicole's description of memorization:

> I can memorize well. . . . If I have some kind of basic test or multiple choice or something I can go through and I can totally memorize all the stuff, and I could go take the test and know the definitions and all this stuff. And then like a week or two later you could ask me that again, and by that time it's forgotten, because I just memorized it for the time being.

No mention is made of identifying with the information or incorporating it into her working body of knowledge. Rather the view presented is one of classifying and storing information.

When other students talked about collecting information, they also talked about saving it to use later on when they graduated from college and got jobs. Lee saw college learning as acquiring information for use after college on a job setting. He talked about applying information

on tests in college more than he had to do in high school, but he agreed that he would save up what he had learned for four years and then apply it. He said:

> College is, you learn a lot of things from the book. Lots of teachers teach from the book, and a lot of teachers write their own book, so you have to waste all your money on their book. But you learn a lot of things, you're laying foundation now, so you can use it later on. You're just laying down the pillars that you're going to be working on later on.

Lee talked about all of college as a learning experience; he was getting information from classes and from the book, and he was learning things like becoming independent from his parents. However, his focus in college was to amass as much information as possible in order to be prepared for his work after college.

FIGs influenced this view of learning as collecting information by allowing students to form a network of peers, thereby giving them multiple opportunities to collect information if they weren't in class or clarify information that they didn't understand in class. As I noted previously, this response to learning may not seem educationally sound (and may not warm the hearts of professors and administrators!) but it is a rational response to the conditions in which students found themselves at this large university. Students gathered clues from their peers, from upperclass students, and from professors about the nature of the work that was required and the extent to which they were required to really think. In this case, their conclusion--that learning was equated with collecting information for use later in their lives--led them to respond in ways that were congruent. FIGs facilitated the collection of information, and therefore were seen as positive experiences.

The other way that FIGs influenced this collection model of learning is that, through the vehicle of conversation, students may have digested some of the information whether they meant to or not. The situation may be analogous to that of distracting children from unwanted food or medicine by talking or telling a joke, then sliding it by unawares. Students signed up for FIGs because they wanted to meet people and they wanted help with studying. An unintended by-product of those two desires was created within the FIG. The combination of meeting people and sharing collected information may have resulted in student spending more time on class material.

This conceptualization of learning as collecting information and storing it brings us back to the academic experiences of students. If learning is the equivalent of taking in information, then there are ways other than going to a class to learn. As Brian said, "I don't need to go hear

a lecture about [something]. I can just go and read it. I don't really need to take the class I guess." Although Brian's solution didn't include using a network of FIG peers, other students' solutions did. The FIGs enhanced students' abilities to collect information, and thereby influenced one interpretation of what learning was all about.

Learning as related to talking. In my interviews with Heather and Nicole they made distinctions between learning and memorizing. Both concepts seem to be related to the degree to which a feedback loop was completed--either through talking or writing. As an example, Heather told me about her French class.

> Heather: In French. . . you go through and you memorize like an irregular verb with all the different endings and stuff. Then when you go through and you say things or write things down you're using them. So, even though you memorized that, you're actually going to be using it in things that you say and do in class.
>
> Anne: So learning is more use-oriented?
>
> Heather: Yeah. I think so. And maybe thinking about it, and talking about it with other people. 'Cause if you just, if things are just memorized, you sit there with a piece of paper, memorize it, write it down, and you're done.

When Heather talked about memorization she talked about sitting with a piece of paper. When she talked about using or learning what she memorized, however, she talked about "saying things" and talking about things with other people. Her version of memorization sounded like a lecture class to me, where students sat and collected information. This led me to consider the possibility of a relationship between talking and learning, the flip-side of sitting and memorizing.

The responses of other students shed more light on the relationship between talking and learning. For example, Mark's earlier comment, that he liked face-to-face communication because it allowed for explanation and discussion, supports this idea. With talking, you can get immediate feedback from peers or a professor; with writing you may get delayed feedback. Perhaps it is the interactive part of the exchange of information that contributes to learning. If a student writes a paper, he presumably has been active in doing some research, reading, and writing. To go back to the analogy of eating, a student who writes a paper using the peer review process has an opportunity to chew and digest his words. But if he hasn't discussed the ideas in the paper with anyone, then the learning (digestion) he is doing may be limited.

The underlying element here, however, is that talking and completing a feedback loop (either oral or written) is a social interaction. It is this social interaction that allows for the cognitive or academic experience to be completed or reinforced. Heather and Nicole's distinctions between learning and memorization were made along a use orientation--if they used the information they ended up learning it, whereas if they just memorized it they didn't necessarily learn it. Memorization was a task that required no feedback; it did not require Heather or Nicole to put any of the information in their own words or apply it to another context. As Heather said, if you learn something, you are talking about it with people; you are using it in your job (applying it, writing about it, talking with people, etc.). In her French class she was engaged in a social process which required her to be conversant about French irregular verbs. For these students, learning was going beyond collecting and storing information to using it or working with it in some socially interactive way. Recall the lament of Kathryn in the section on academic dynamics. She is the person who said, "sometimes you feel you're not learning anything; it feels like you're just reading the book and taking the test." There seems to be no room for personal interaction in that description of learning.

In another part of my interview with Heather, I said that I thought learning sounded like something someone would do on her own, but FIGs were supposed to bring people together. I asked her what she thought about these potentially divergent views. This was her reply:

> We were all learning supposedly together [in the FIG], but each person learns differently and takes things differently. I mean, studying for tests and stuff. We helped each other. And copying notes and stuff for days we missed and that kind of stuff, dividing things up. I know that me and this one girl do that a lot. Just studying for things and talking to each other about our projects and stuff. And I think one thing about our FIG, maybe didn't allow us as much time socializing together, because our classes were all right in a row. We'd meet at class in the morning, we'd go to our three classes, and then we each had things we had to do afterwards. As so, if you had that break [between classes] . . . you might go do something.

Heather combines the individual and social aspects of learning by saying that they do some things together ("talking to each other") and some things alone ("dividing things up"). She goes on to suggest that the FIG may have been better if it had allowed more time between classes for the students to socialize. In their socializing between classes they combined talk of class material and out of class information, thereby striking some sort of balance between their social and academic experiences.

It is here that the FIG demonstrates its potential to be a powerful influence on the learning process of students. In the combination of time spent in class interacting through the peer review writing process and the time spent out of class talking about a variety of topics (both "academic" topics and "social" topics) students are able to integrate the new material they are receiving into their daily conversations, their vocabularies, and into the way they think. Passively receiving the information from a lecture in a room full of strangers is not enough to ensure that a student will taste the material, roll it around on her tongue, and savor it. Placing the material in the socially structured context of the FIG allows students to integrate the new material with their personal experience, thereby extending the nature and duration of the academic conversations students may have.

Nicole gives one final example of how talking was related to learning. I asked her if she thought she would have gotten the same things from her classes if, instead of linking the writing class and the lecture class, they had met for the same amount of time just in the lecture class.

> Anne: So what if you had nine hours of lecture per week in the classics class and didn't have the writing class? How would that - would that have been the same thing?
>
> Nicole: No, it wouldn't have been the same. [She goes on to describe how she falls asleep in classics because she's tired.] If I'm in Writing we'll start talking about things and you listen to other people's ideas or you talk, and it just keeps me more alert, kind of. I mean, within the class we would talk more, not with each other, but with the teacher asking us questions, and people responding, and you get more ideas and I guess learn more. . . . The Writing class would probably be more beneficial.

Although Nicole says that she would learn more in the writing class, she is not implying that she would be collecting more information. Instead, the talking, discussing, and sharing of ideas is what is appealing to her. Not only did the talking in class keep her more alert, it kept her interested and involved.

Interestingly, this notion of talking and learning was demonstrated within the context of my conversations with students. As I had multiple interviews with students and I began to ask for more specific information about what and how they thought they were learning, the students struggled with their responses at times. When I asked them to articulate what they thought they were learning they sometimes gave me contradictory answers. They recognized this, then they

usually stopped and said something like "oh no, I've talked myself into a corner!" I replied that there were no right answers to these questions, and that the questions were difficult because they weren't usually asked. Then the students either revised their answers or we went on to another topic. Through the vehicle of our conversations students were thinking about what they were learning, and they were given a chance to articulate it.

Learning in relation to grades. A third way of viewing learning that emerged from my interviews was related to grades. Usually when I asked students how their classes were going they told me how they were doing, either in general terms (ie. "pretty well") or by giving me their specific grades. Throughout our interviews students told me specifics grades on papers, classes, or what they calculated their grades to be for current classes 20 times. Only once did I ask for a specific grade. The pervasiveness of a grade-orientation to learning should not be a surprise to anyone. *Making the Grade* (Becker, Geer, and Hughes, 1968) was an early report that showed how students and institutions used grades for many purposes other than giving credit in a class. More recently, Helen Horowitz (1987) concluded that there have always been students in higher education for which grades have been their sole focus.

In our interviews, students told me about grades in a variety of contexts--that grades were a way of knowing if you were learning anything, a way of getting into some of the schools and colleges within the University (ie. the Business School), and a way of getting a good job after college. Brian gave me the clearest example of a person for whom grades were an incentive to do his work. He talked about being lazy, and needing grades to keep him doing his assignments. He said that if he weren't in college he might do some reading that interested him, but he wouldn't read as much as he does because he's in college. College grades provided Brian with the motivation to do his work because as he said, if you want to get a good job you have to get good grades. He linked grades and learning in this way:

Brian: The grades just act to see how well I'm doing, if I'm learning or not.

Anne: But don't you know whether you're learning?

Brian: Not really, 'cuz if I'm doing a paper, and I think I'm right, but I'm wrong, and it turns out I'm wrong, I'd like to know that.

Anne: Well, couldn't [the instructor] just tell you?

Brian: well, yeah, he could. (pause.) Oh, that's another thing, if there were no grades, and I knew what to do, and I did it, I could do a slipshod job and then, there are no grades, and I did kind of right, then I could just screw off. The grades keep the quality of my work up."

Anne: Okay, so you don't think you'd be motivated to do high quality work without the grades?

Brian: Yeah. That's what I'm saying. I don't know if that's what I think!

Perhaps Brian and the other students like him who placed much emphasis on their grades as measures of their learning are expressing a different part of the view of learning as collecting information. In Brian's view, grades are a way of measuring how much information has been collected *correctly*. As Brian says, he wants to know if what he has written is wrong or right. From his point of view, only the professor is in a position to judge that, and the way the professor conveys his judgement is through grades.

Not all students looked at grades the way that Brian did. Some, like George, Lee, and Jeff, placed emphasis on them but also recognized the role that their peers could play in giving feedback which contributed to a higher grade. Still other students saw grades as meaningless and somewhat arbitrary. Mark, in particular, was critical of the practice of giving grades, yet he was going to argue with a professor if he didn't get a good grade on a paper that he had just handed in. Even though Mark didn't like grades, he talked about how much they were used to award jobs, so he was unwilling to take the risk of totally ignoring the grades he got. Also, in spite of Mark's protests that grades were meaningless in terms of learning, he was one of the students who told me many of his specific grades.

I am unsure of how FIGs influenced this grade-oriented view of learning. Although the weekly FIG meeting with the Peer Advisor was a pass/fail one credit course, the other classes that FIG students took were graded in the usual manner. Perhaps because FIGs relied on the same underlying structure of the traditional University courses they did not cause the students to think differently about grades or grading practices. This might be another area that FIGs potentially could influence if they were structured differently.

Gender Patterns of Learning

It is interesting to note the gender differences of the students I cite in this section on learning. The students who talked most about viewing learning as related to talking are women; all the students who talked about viewing learning in relation to grades are men. While I realize that I am dividing a small number of interviewees into two smaller groups, the differences in the way women and men talk about learning should not be ignored. Indeed, the strength of this style of research is that it allows us to discern possible patterns that may exist on a greater scale. More women than men spoke of learning in relation to talking, and were able to give me examples of exchanging ideas and sharing information. Although I had as many in-depth conversations with Heather, Beth, and Nicole as I did with Mark, Lee, and Brian, the information I use in the section on learning as related to talking comes mostly from Heather and Nicole. Some of the women told me their grades, but they did so to elaborate on a point they were making (such as contesting a grade on a paper), not as a general listing of grades they were getting. Out of the 20 times students told me their specific grades, women told me their grades only three times. I did not make these observations to the students, and so I have no way of knowing what meaning they might have made out of this information.

It might be that these observed differences are due in part to differences in communication patterns between women and men. In experiments with small group interaction in her classroom, Deborah Tannen (1991) observed that women talked more in same-sex groups than in mixed-sex groups. Some men saw the small groups as less challenging than the large group debate format, where the students usually engaged in some form of debate (or question and answer) with the professor. This relates directly to whether students value the comments of their peers and professors or only the comments of their professors. Women may see more value in sharing information among a small group of peers; men may see more value in soliciting the comments of the professor either in front of the entire class or on an individual basis.

Other studies have found similar patterns. Women and men interact differently in classrooms--men participate much more than women in a class with a male professor; women participate much more in a class with a female professor but still less than men (Karp & Yoels, 1976; Treichler & Kramarae, 1983). Perhaps this pattern of participation is similar to students willingness to disclose or boast of grades. It may be socially acceptable (and expected) for men to share grades as a way of displaying how much they have learned, while for women the opposite is true. Further research on the language patterns of women and men with regard to the relationship of learning, talking, and grades would be fruitful. This study indicates that talking and grades are different ways students think about learning.

The Issue of Control: Who Controls What Learning Is?

Students who equated learning with collecting information and memorization talked about taking in information and spitting it back for the professor. I suggested that other students who described learning in terms of talking over ideas with their peers were taking the time to chew and digest the information they received. They might spit the information back for a test, but they might absorb some of it into their personal body of knowledge also.

Students describe collecting as much information as they can, then spitting it back for the professor either in the form of a paper or a test. The information is not processed, but simply stored for latter use. In terms of control, the professor is the one who decides what information, how much information, when and in what manner to give the information to students. Professors control the manner in which students give back the information, and they control the process of evaluation, essentially deciding whether the student has learned or not. Students are left to decide how much information they want to take in. They do this by deciding whether to go to class, whether to get notes from friends, and how much homework to do.

Students who describe learning as related to talking with their peers have been placed in a position of greater control of the information. The peer review writing process, for example, gives students an opportunity to give and get feedback from other students. This takes the professor out of the center of the classroom, at least temporarily, and acknowledges the contributions of others. Students who take advantage of the opportunity offered are those who value the comments of their peers as well as professors. Students who only value the feedback of the professor may not perceive that they are being given any control since as they point out, the professor has the last word in the form of a grade. Or perhaps students are not used to being offered any control over the learning process and therefore have come to value only the feedback of the professor.

As I have noted throughout, FIGs provide opportunities for students to have some control of their learning. Students can meet and get to know people who are in all their classes. Knowing a group of peers may encourage students to speak up in discussions. Having a writing class of 20 people allows for the formation of small groups, which can then utilize the peer review writing process. The formation of a network of peers also allows students access to information in ways other than going to class. In these ways, FIGs allow students to be something other than a nameless person in a crowded lecture hall. They have the potential to influence their own learning in positive ways.

Issues of control over the production and dissemination of knowledge are a central theme in the literature about collaborative learning. Questions arise as to whether the professor is the central figure of authority (Finkel and Monk, 1983), the role of the professor and students in a collaborative learning situation (Bouton and Garth, 1983, MacGregor, 1990, Whipple, 1987), and the role of groups in constructing knowledge (MacGregor, 1990, Rau and Heyl, 1990). Those proponents who encourage professors to lessen their control over all aspects of the classroom and give some power to students speak to the issues that have been raised by the students in this study. FIGs allow students to make social connections with their peers, which in turn allow them to carry on conversations in the classrooms and beyond. The combined effect leads to a different approach to learning for those students who can appreciate it and use it.

Information has been presented that demonstrates what students said about learning. Generally, students viewed the learning process in their writing class in one of two ways: they valued the feedback they received from their peers as well as that of the professor, or they valued only the feedback from the professor. In addition, students talked about learning in three ways: as it related to the collection of information, in relation to talking, and as it related to grades. From the comments of students in this section we can conclude that some students were more receptive to collaborative learning strategies than other students. Bonwell and Eison (1991) report that according to a variety of studies of preferred student learning styles, we can expect that some students will respond well to active learning strategies and others will not.

I believe the information presented argues for the implementation of collaborative learning in university classes so that those students who respond well to it will have an opportunity to learn in such an environment. The traditional classroom at most institutions of higher education consists of a lecture format for much of the time. This assumes that this is the way students learn best, yet evidence from this study and many others cited throughout dispute that claim. Students who are exposed to collaborative learning strategies like FIGs say that they find them beneficial, and appreciate the opportunities they provide to meet people in class and form networks with their peers. The social dynamics that are created within a FIG provide a comfortable atmosphere which allows students to attend to their academic experience. Thus the balance between the FIG experience and the traditional classroom experience can offset the intimidating, distant climate of many large classes.

Viewing learning as a combination of collecting information for use later and a process of talking that integrates classroom material with a student's life experience means that classrooms must be created which allow for both views of learning. FIGs, with the opportunity for 20 students to meet, get to know one another, and take a writing class which uses the process

of peer review, are a way of introducing the value of peer feedback to students. In turn, the process of peer feedback requires that students talk to one another about their writing, their ideas, and their experiences. Students are given the opportunity and the permission to discover that their ideas are of value, and that the center of cognitive authority does not only lie with the university faculty.

Viewing the learning process as an issue of controlling information means that professor and students together must examine their roles in the classroom. Writing Link FIGs allow students to gain a sense of their won abilities and place the professor in the role of writing tutor as well as evaluator. They do this by combining social interaction with peer feedback during the writing process. Although all of this is done within the constraints of the larger university, FIGs can encourage students to take control of their own learning experiences when such opportunities arise.

PART FIVE

SUMMARY OF FINDINGS

Quantitative Panel Study: Tracing the Impacts of Participation in Freshman Interest Groups

Two panels of students were followed over the course of their first year, one consisting of participants in the Freshmen Interest Group program, another of students enrolled in the first year sociology and chemistry classes. Two survey questionnaires were administered to the members of the two panels, the first during the beginning of the Fall quarter, the second during the Spring quarter of that academic year. Additional information on performance and persistence was obtained from institutional records during the following Fall quarter.

Three types of analyses were carried out. Descriptive analyses were used to compare the attributes, experiences, gains, perceptions, and outcomes of FIG and comparison class students. They were also utilized to compare students who enrolled early as opposed to late in the registration process and students who participated in the Writing Link FIGs and contrasted to Non-Writing Link FIGs. Discriminant stepwise analysis were employed to determine to what degree different attributes, experiences, gains, perceptions, and outcomes distinguish between those who persist to the second year of college and those who do not. Finally, logit regression analysis was used to gauge to what degree different attributes, experiences, gains, perceptions, and outcomes predict the likelihood that individuals will persist onto the second year of college.

The quantitative analyses suggest that the Freshman Interest Group program provides a modest, though non-trivial, benefit to its participants. Though participation in FIGs generally was not associated with any greater involvement in a range of activities or in self-reported estimates of gain over the course of the year than was participation in comparison classes, it was associated with more positive views of other students, the campus climate, and one's own involvement in the university. More importantly, participation in the FIGs was associated both with somewhat greater grade point average and increased persistence onto the second year of college. This positive persistence outcome was especially evident when students were asked whether they would come back to the University had they the opportunity to "do it over again."

Additional analysis indicates that the benefits accruing from participation in a FIG can not be easily attributed to any obvious pattern of self-selection of students into the FIGs or to the varying attributes of those who choose FIGs over the regular first quarter curriculum. Rather, the research suggests that the benefits of FIG participation must be attributed, at least in part, to something the FIGs do.

Separate analysis among FIG students suggests that participation in the Writing Link FIGs yields the greatest academic benefit to students especially in increasing their involvement in a range of course, writing, and faculty contact activities. As contrasted to participants in Non-Writing Link FIGs, students in the Writing Link FIGs are more involved in the life of the University and more positive about their experiences during the first year.

Qualitative Case Study: Freshman Interest Groups and Making Sense of a Large University

The qualitative case study focused on students in the Writing Link FIGs. Through observations and both formal and informal interviews, we sought to understand how participation in the FIGs shaped students' experience of their first year at the University.

As we talked to students, we came to understand that Freshman Interest Groups (FIGs) have multiple meanings for students. Students sometimes talked about their FIG in terms of the people in the group. One woman, for instance, talked about the FIG as the group of people and the personal connections that she was able to make. Other students talked about the courses they were taking as "the FIG". For example, the FIG was a collection of courses that were easy to register for and which filled a distribution requirement. Or, the FIG was a collection of courses across which topical connections could be made.

These different meanings that students made of the term "FIG" are important to observe because they point the way toward understanding the different things that FIGs did. Students days are occupied with much more than classes and homework, and that is vital background information. The context in which the FIGs operate is important to understand because it provides a type of baseline against which comments about the FIGs can be understood. It is important to know that students do not think of FIGs only in terms of what classes they are taking. Students also think of FIGs as the people in them, so that when asked how her FIG was, one woman replied "you mean, the classes or the people?" For this student and others, FIGs were not merely collections of classes, but collections of people as well, and it was the regular

contact with the same group of peers more than the continuity of courses that enabled FIGs to have an influence, however small, on the lives of the students.

The findings of the qualitative study cover three areas: 1) social dynamics of college, 2) student views of the classroom experience, and 3) what students say about learning.

The first, captured by the quote "If it weren't for the FIG I wouldn't have met anyone", reveals that much of the influence of the FIGs was in the realm of social relationships between students and their peers. These were the things that students first talked of when asked about their college experience. For example, the main reason given for joining a FIG was to meet people. At a large university such as the University of Washington, meeting people in classes is not an easy thing to do; students felt more comfortable walking into large classes knowing that members of their FIG were there also. Students also talked about their social interactions with faculty and staff members. It became clear that students were more likely to feel comfortable in situations where they were made to feel that their actions, feelings, and thoughts were of value. Not all students found people who took a personal interest in them, and as such their social integration into the life of the University was halting, at best.

In his study of Mexican-American first year students at a large public university, Louis Attinasi (1989) used the phrases "getting in" and "scaling down" to describe the ways that students talked and acted in order to find a place where they felt they fit in. The study focused on the precursors to college entrance, and the social enclaves students joined once in college. What gives FIGs the potential to go beyond to ideas of "getting in" and meeting people in general is that FIGs are a way for students to get to know one another in a context that emphasizes academics in addition to social concerns. It is a way that the University can go beyond the usual ways in which students meet and make connections, and provide an additional way to integrate students into their classes.

The second finding summarized by the title, "Reading the book and taking the test: Student views of the classroom experience," describes what many students encountered. The predominant view expressed by students was that large classes, combined with a lecture style of teaching created an atmosphere of alienation, distance, and detachment. Under these conditions, students reacted in a variety of ways, from sitting passively in a classroom to skipping classes. Students felt that their presence in large. classes would not be missed, so they either absented themselves in mind or body. This is not to say that they were not concerned with getting the information from classes. Students used a variety of means for getting information--asking other FIG members for notes, buying notes, and reading the class text book. Very little

personal interaction, however, was necessary for these types of classrooms. As one student said, sometimes she felt like all she was doing was "reading the book and taking the test." The section concludes, with student comments about how FIGs could alter the effects of these factors. In the small writing classes that were a part of the FIG, students felt peer pressure to attend classes. They also developed a network of peers to assist with getting and clarifying information, and occasionally study together.

The third finding on student views of learning captures the ways that students thought about their learning process. Within their writing classes and across their other classes, students either valued the interactions with their peers and professors, or valued only the information that came from the professor. Some students talked about liking their interactions with peers because doing so made them aware of an audience beyond the professor. They were able to try out ideas and refine their writing with other peers better than they could alone. Other students did not like their interactions with peers because they felt it interfered with getting feedback from the professor, or was superfluous to the feedback of the professor. Students did not just talk about what they liked or dislike in classes, they also talked about the nature of their learning experiences. They viewed learning in a variety of ways: as collecting information, as related to talking, and in relation to grades. While some students saw the learning process as one of collecting as much information as possible (and preferably the correct information, as indicated by tests), other students said they learned better when they were able to relate the class information to personal experiences, and talk about them with their peers. FIGs accommodated both types of preferences. Students who were concerned with gathering information had a network of peers from which to draw if they missed class or needed clarification. Students who valued personal interaction as a means of learning were able to establish relationships with a consistent set of peers across their classes.

Taken together, these findings bring us back to the tenets of collaborative learning and its claim that such learning can enhance student learning in higher education. Proponents of collaborative learning emphasize that knowledge is a social construction; therefore they urge practitioners to pay attention to the social context of the learning experience. Our findings indicate clearly that students pay a great deal of attention to the social dynamics of their college experience. In addition, practitioners of collaborative learning strive to provide sources of information to students other than the professor. Students learn that they can rely on their own life experiences and those of their peers or family for information. The students in the Freshman Interest Groups at the University of Washington who viewed learning as a process of completing an interactive feedback loop--either through talking or writing--reflected this belief. In these ways, our findings reinforce the assertion that collaborative learning strategies such as those

found in the Writing Link FIGs respond to the needs of students in ways that traditional teaching strategies cannot.

Conclusion

By providing students a way to engage in learning while also engaging socially with their peers, the Freshmen Interest Groups, especially the Writing Link FIGs, were able to address one of the continuing problems facing students in the first year of college, namely the need for both academic as well as social integration. And they did so in a manner that did not require students to pit one need against the other. First year students in Writing Link FIGs were able to pursue friendships and learning at the same time.

Unfortunately, this is not the case for most college students, especially those attending residential campuses away from home. For these students the demands of social membership in the first year frequently take precedence over the demands of academic work. This may be expressed in the form of sorority/fraternity pledging, membership in student organizations, or time spent with friends "hanging out". Students often pursue social affiliations at the expense of academic work.

This problem is further compounded by the size of many public institutions. In large public universities and colleges where class sizes in the first year typically run in the hundreds, and sometimes are taught by graduate assistants, students commonly report themselves as bored and uninterested in the classroom lectures. They find that learning is a highly individualistic, often alienating experience.

While Freshmen Interest Groups cannot, in themselves, solve the problems of uninteresting classes, they do serve as a type of learning community in which students experience a cluster of courses together in ways which can further their understanding of course material. More importantly, learning communities generally do more than simply make learning possible in the first year. By linking the social to the academic, learning communities make for a more powerful learning experience, one that transcends the typically uninvolved academic experience of the first year. And as reported elsewhere, it is an experience that significantly impacts upon both first year learning and persistence onto the second year of college.

Nevertheless, it must be observed that in their current form, Freshman Interest Groups at the University of Washington, do not completely address one of the continuing problems facing freshmen year programs, namely the absence of significant faculty involvement. As they

were constructed in 1991, faculty did not participate in the FIG program and only the Writing Link faculty were asked to adapt their content to that of another course. Other learning community programs, however, such as the Coordinated Studies Program at Seattle Central Community College, Lee's Honors College at Western Michigan University and the learning community programs at LaGuardia Community College, are themselves the product of faculty action. Faculty, rather than student affairs staff, run the program. As a result the issue of academic credit is a moot one as the program is an integral part of the academic program. The evidence here is nevertheless clear. Even a modest program such as that at the University of Washington has substantial impacts on first year students.

One is left to wonder what more could have been achieved by a even more elaborate program that more fully involved the faculty and greater innovation in the way students were asked to learn during their first year in college. In this regard, we were continually struck by the comparisons students made between their experience in the FIGs and those in the large lecture halls that typically dominate the educational terrain of the freshman year. Whereas the former were generally seen as involving, intimate, and supportive, the latter were often seen as remote, isolating, and unsupportive. And while the FIGs seemed to students to promote the norms of cooperation and community, much of their academic experience in other settings seemed to support norms of competitiveness and individualism over community. Indeed, the experience of the FIGs led some students to question what would otherwise have been considered the accepted state of teaching and learning in the freshman year.

Here then lies a more fundamental conflict which we see reflected in the experience of FIG students, namely that between the growing desire for community and cooperation among students and the character of existing higher educational practice during the freshman year, one that typically serves to pit students against each other as isolated individuals competing for scarce academic goods. It is a conflict between differing visions of higher education whose resolution will have much to do with the future of higher education in America.

Seen in this light, the Freshman Interest Group program at the University of Washington represent but one of a growing number of efforts across the nation to redefine higher education and reassert the importance of educational community in the education of students.
It is an effort that argues that we should reconsider the nature of the freshman year experience -- indeed of higher education generally -- and the character of existing freshman year programs and make learning community. programs an integral, rather than supplemental, part of the freshman year academic experience. The evidence presented here indicates that the benefits of such programs are substantial.

PART SIX

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APPENDIX A

PANEL SURVEY QUESTIONNAIRES

Freshman Interest Group Fall Questionnaire

BEGINNING STUDENT QUESTIONNAIRE

NAME _____
Last First Middle

STUDENT ID NUMBER _ _ _ _ _ _ _ _ _

IN THE QUESTIONS BELOW, CIRCLE THE BOLDFACE NUMBER THAT INDICATES THE CORRECT RESPONSE.

A. Age:

1. 18 or under
2. 19
3. 20
4. 21
5. 22 to 24
6. 25 to 29
7. 30 to 39
8. 40 or over

B. Marital Status:

1. Unmarried (including Single and Widowed)
2. Married
3. Separated/Divorced

C. What Type of School Did You Attend Just Prior to Entering this College?

1. High School
2. Vocational/Technical School
3. 2-year College
4. 4-year College or University
5. Other

D. How would you describe your program of study during school?

1. College Preparatory
2. Business
3. Vocational
4. General or Other

E. Where do you now live?

1. College Dorm
2. Fraternity or Sorority House
3. College Married Student Housing
4. Off-Campus Room or Apartment
5. Home of Parents or Relatives
6. Own Home
7. Other

F. Are You Currently Employed? 1. Yes 2. No

G. If Employed, Are You Employed:

1. On-Campus 2. Off-Campus

H. If Employed, How Many Hours Per Week Are You Working?

1. 1 to 10
2. 11 to 20
3. 21 to 30
4. 31 to 40
5. Over 40

I. Are You Currently Receiving Financial Aid?

1. Yes 2. No

J. What is the Highest Level of Education Completed by your Parents? (Circle one in each column)

	Father	Mother
Grammar school or less	1.	1.
Some high school	2.	2.
High school graduate	3.	3.
Post secondary other than college	4.	4.
Some College	5.	5.
College Degree	6.	6.
Some Graduate School	7.	7.
Graduate School	8.	8.
Professional (Law, Medicine,etc.)	9.	9.

K. What is the Highest Degree You Intend to Obtain?

1. None
2. Vocational Certificate
3. Associate (2-year) Degree
4. Bachelor's Degree (BA,BS,etc.)
5. Master's Degree (MA,MS,etc.)
6. Ph.D or ED.D
7. M.D.,D.O., D.D.S. or D.V.M
8. J.D. or LL.B. (Law)
9. Other

L. How many academic hours are you enrolled THIS QUARTER?

1. 6 hours or less
2. 7 - 12 hours
3. more than 12 hours

M. What is the general area of your likely major?

1. Liberal Arts (social sciences and humanities)
2. Science
3. Engineering
4. Business Adminstration
5. Health Sciences
6. Other
7. Undecided

N. How important is it for you to complete a University degree?

	from ANY university	from THIS university
Very important	1.	1.
Somewhat important	2.	2.
Slightly important	3.	3.
Not at all important	4.	4.

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O. Which type of Class Format do you Most Prefer? (circle one)

1. Lecture Format
2. Small-group format with discussion
3. Independent Study with faculty member
4. Laboratory or Shop format
5. Other format
6. No Preference

P. How do you best learn? (circle one)

1. Alone
2. With friends
3. Being tutored
4. Tutoring Others
5. In a classroom lecture
6. In a classroom discussion
7. In a laboratory or shop
8. Don't know

R. Why Did You Decide to Enroll in a Freshman Interest Group? (Circle all that apply)

1. courses seemed interesting
2. courses required for a major
3. chance to meet other freshmen socially
4. opportunity to learn how to study
5. opportunity to be with a small group of students
6. only way to get a class
7. interested in the theme of the FIG
8. to get a better grade
9. other _____

S. How Did You Hear about the Freshman Interest Groups? (circle one)

1. at new student orientation
2. from material sent to me in the mail
3. from a high school teacher or counselor
4. from a college advisor
5. from a friend or relative
6. other _____

T. How well prepared do you feel you are for University work in the following areas?

	Poor	Fair	Good	Very Good
a. Ability to write sentences in standard English	1.	2.	3.	4.
b. Ability to write a well-organized paper	1.	2.	3.	4.
c. Ability to write research paper	1.	2.	3.	4.
d. Reading comprehension	1.	2.	3.	4.
e. Ability to speak clearly, effectively	1.	2.	3.	4.
f. Vocabulary	1.	2.	3.	4.
g. Ability to use general mathematical computations	1.	2.	3.	4.
h. A foreign language(s) other than English	1.	2.	3.	4.
i. Ability to find library materials for research	1.	2.	3.	4.
j. Study skills for effective learning	1.	2.	3.	4.
k. Managing time for university work	1.	2.	3.	4.

U. During the last year in high school, how many hours did you spend during a typical week doing the following activities?

	0 hours	1 - 5 hours	6-10 hours	11-15 hours	16-20 hours	over 20 hours
Studying/homework	1.	2.	3.	4.	5.	6.
Socializing with friends	1.	2.	3.	4.	5.	6.
Talking with teachers outside of class	1.	2.	3.	4.	5.	6.
Working for pay	1.	2.	3.	4.	5.	6.
Volunteer work	1.	2.	3.	4.	5.	6.
Exercising/sports	1.	2.	3.	4.	5.	6.
Studying in the library	1.	2.	3.	4.	5.	6.
Studying with friends	1.	2.	3.	4.	5.	6.
Participating in extracurricular activities	1.	2.	3.	4.	5.	6.

V. What is your best guess as to the chances that you will:

	Very Good Chance	Some Chance	Very Little Chance	No Chance
Need extra time to complete your degree requirements?	1.	2.	3.	4.
Drop out of this college temporarily?	1.	2.	3.	4.
Transfer to another college before graduating?	1.	2.	3.	4.
Get a Bachelor's degree?	1.	2.	3.	4.
Make at least a "B" average?	1.	2.	3.	4.

Students have different views or perspectives on their college experiences and value different aspects of those experiences. Below is a series of statements describing a variety of orientations to the college experience. You will probably agree with some of the statements and disagree with others. There are no "right" answers here. Please circle the number on the scale below which indicates your level of agreement or disagreement with each statement.

	Strongly Disagree	Disagree	Agree	Strongly Agree
I enjoy investigating a topic of interest to me	1.	2.	3.	4.
In high school, I frequently questioned or challenged teachers' statements and ideas before I accepted them as right	1.	2.	3.	4.
What I learn in a course is more important than the grade I get	1.	2.	3.	4.
I prefer courses in which the material helps me understand something about myself	1.	2.	3.	4.
Learning about myself during college is probably more important than preparing for a career	1.	2.	3.	4.
Getting the best grades I can is very important to me	1.	2.	3.	4.
Whether or not I stay in college depends on circumstances beyond my control	1.	2.	3.	4.
I'd rather figure something out for myself than simply have it explained to me	1.	2.	3.	4.
I am willing to work very hard in a course in order to learn the material, even if it won't lead to a higher grade	1.	2.	3.	4.
The grade I get in a course depends on how hard the instructor grades, not on carefully I study	1.	2.	3.	4.
I've read books or articles with which I strongly disagree	1.	2.	3.	4.
When I don't understand something in a course I work at it until I do	1.	2.	3.	4.
I enjoy the challenge of learning complicated new material	1.	2.	3.	4.
Good luck is more important for academic success than hard work	1.	2.	3.	4.
I enjoy reading poetry and literature	1.	2.	3.	4.
I enjoy reading about science	1.	2.	3.	4.
I enjoy reading about history	1.	2.	3.	4.
Getting a good grade in a course depends more on being "naturally" smart than on how hard I work	1.	2.	3.	4.
My major purpose for being in college is to prepare myself for a career	1.	2.	3.	4.
I enjoy talking with people who have values different from mine because it helps me understand myself and my values better	1.	2.	3.	4.
I consider the best teachers to be those who can tie things learned in class to things that are important to me in my personal life	1.	2.	3.	4.
I can almost always do well in a course if I plan and organize my study time	1.	2.	3.	4.
It is more important to learn ideas and concepts in a course than it is to learn the facts and basic information presented	1.	2.	3.	4.
In high school, I often talked to my teachers outside of class about the ideas presented during class	1.	2.	3.	4.
When I have trouble learning the material in a course, it is because the teacher isn't doing a very good job teaching	1.	2.	3.	4.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Learning about people from different cultures is a very important part of a college education	1.	2.	3.	4.
Learning how to learn is important to me	1.	2.	3.	4.
I enjoy expressing my ideas in writing	1.	2.	3.	4.
In high school, I frequently did more reading in a course than was required simply because it interested me	1.	2.	3.	4.
The courses I enjoy the most are those that make me think about things from a different perspective	1.	2.	3.	4.
Learning is important to me because it will give me greater control over my life	1.	2.	3.	4.
I study more to maintain my grade-point average than to really understand the material	1.	2.	3.	4.
For me, one of the most important benefits of a college education will be a better understanding of myself and my values	1.	2.	3.	4.
Developing a clearer sense of who I am is very important to me	1.	2.	3.	4.
After I write about something, I see that subject differently	1.	2.	3.	4.
I prefer reading things that are relevant to my personal experience	1.	2.	3.	4.
If I have something good to read, I'm never bored	1.	2.	3.	4.
I enjoy taking courses that challenge my beliefs and values	1.	2.	3.	4.
When I do well on a test, it is usually because I was well prepared, not because the test was easy	1.	2.	3.	4.
My academic experiences (i.e. courses, labs, studying, discussions with faculty) will be the most enjoyable part of college	1.	2.	3.	4.
My academic experiences (i.e. courses, labs, studying, discussions with faculty) will be the most important part of college	1.	2.	3.	4.
I expect have frequent discussions with my teachers outside of class	1.	2.	3.	4.
I expect to have frequent discussion about class material with my classmates outside of class	1.	2.	3.	4.
I enjoy courses that are intellectually challenging	1.	2.	3.	4.
I enjoy having discussions with people whose ideas and values are different from my own	1.	2.	3.	4.
The real value of a college education lies in being introduced to different values	1.	2.	3.	4.
I can learn more from doing than from reading	1.	2.	3.	4.
I prefer exams requiring me to organize and interpret information or ideas over exams that ask me only to remember facts or information	1.	2.	3.	4.
In high school, I often had discussions with other students about ideas or concepts presented in classes	1.	2.	3.	4.
I prefer to do assignments in which I have to analyze and interpret what I've read rather than just summarize and report	1.	2.	3.	4.
Contact with individuals whose background (e.g. race, national origin) is different from my own is an essential part of my college education	1.	2.	3.	4.

Comparison Group (Sociology) Fall Questionnaire

BEGINNING STUDENT QUESTIONNAIRE

NAME _____
Last First Middle

STUDENT ID NUMBER _ _ _ _ _ _ _ _ _

IN THE QUESTIONS BELOW, CIRCLE THE BOLDFACE NUMBER THAT INDICATES THE CORRECT RESPONSE.

A. Age:

1. 18 or under
2. 19
3. 20
4. 21
5. 22 to 24
6. 25 to 29
7. 30 to 39
8. 40 or over

B. Marital Status:

1. Unmarried (including Single and Widowed)
2. Married
3. Separated/Divorced

C. What Type of School Did You Attend Just Prior to Entering this College?

1. High School
2. Vocational/Technical School
3. 2-year College
4. 4-year College or University
5. Other

D. How would you describe your program of study during school?

1. College Preparatory
2. Business
3. Vocational
4. General or Other

E. Where do you now live?

1. College Dorm
2. Fraternity or Sorority House
3. College Married Student Housing
4. Off-Campus Room or Apartment
5. Home of Parents or Relatives
6. Own Home
7. Other

F. Are You Currently Employed? 1. Yes 2. No

G. If Employed, Are You Employed:

1. On-Campus 2. Off-Campus

H. If Employed, How Many Hours Per Week Are You Working?

1. 1 to 10
2. 11 to 20
3. 21 to 30
4. 31 to 40
5. Over 40

I. Are You Currently Receiving Financial Aid?

1. Yes 2. No

J. What is the Highest Level of Education Completed by your Parents? (Circle one in each column)

	Father	Mother
Grammar school or less	1.	1.
Some high school	2.	2.
High school graduate	3.	3.
Post secondary other than college..	4.	4.
Some College	5.	5.
College Degree	6.	6.
Some Graduate School	7.	7.
Graduate School	8.	8.
Professional (Law, Medicine,etc.)..	9.	9.

K. What is the Highest Degree You Intend to Obtain?

1. None
2. Vocational Certificate
3. Associate (2-year) Degree
4. Bachelor's Degree (BA,BS,etc.)
5. Master's Degree (MA,MS,etc.)
6. Ph.D or ED.D
7. M.D.,D.O., D.D.S. or D.V.M
8. J.D. or LL.B. (Law)
9. Other

L. How many academic hours are you enrolled THIS QUARTER?

1. 6 hours or less
2. 7 - 12 hours
3. more than 12 hours

M. What is the general area of your likely major?

1. Liberal Arts (social sciences and humanities)
2. Science
3. Engineering
4. Business Administration
5. Health Sciences
6. Other _____
7. Undecided

N. How important is it for you to complete a University degree?

	from ANY university	from THIS university
Very important	1.	1.
Important	2.	2.
Slightly important	3.	3.
Not at all important	4.	4.

O. Which type of Class Format do you Most Prefer? (circle one)

1. Lecture Format
2. Small-group format with discussion
3. Independent Study with faculty member
4. Laboratory or Shop format
5. Other format
6. No Preference

P. How do you best learn? (circle one)

1. Alone
2. With friends
3. Being tutored
4. Tutoring Others
5. In a classroom lecture
6. In a classroom discussion
7. In a laboratory or shop
8. Don't know

R. Are You Currently Enrolled in a Freshmen Interest Group?

1. Yes 2. No

THE FOLLOWING QUESTIONS ARE OPTIONAL

S. How Well Are Your Learning Needs being met in SOC 271?

1. Poorly
2. Fairly Well
3. Well
4. Very Well

T. How effectively is SOC 271 being taught?

1. Poorly
2. Fairly Well
3. Well
4. Very Well

U. How well prepared do you feel you are for University work in the following areas?

	Poor	Fair	Good	Very Good
a. Ability to write sentences in standard English	1.	2.	3.	4.
b. Ability to write a well-organized paper	1.	2.	3.	4.
c. Ability to write research paper	1.	2.	3.	4.
d. Reading comprehension	1.	2.	3.	4.
e. Ability to speak clearly, effectively	1.	2.	3.	4.
f. Vocabulary	1.	2.	3.	4.
g. Ability to use general mathematical computations	1.	2.	3.	4.
h. A foreign language(s) other than English	1.	2.	3.	4.
i. Ability to find library materials for research	1.	2.	3.	4.
j. Study skills for effective learning	1.	2.	3.	4.
k. Managing time for university work	1.	2.	3.	4.

V. During the last year in high school, how many hours did you spend during a typical week doing the following activities?

	0 hours	1 - 5 hours	6-10 hours	11-15 hours	16-20 hours	over 20 hours
Studying/homework	1.	2.	3.	4.	5.	6.
Socializing with friends	1.	2.	3.	4.	5.	6.
Talking with teachers outside of class	1.	2.	3.	4.	5.	6.
Working for pay	1.	2.	3.	4.	5.	6.
Volunteer work	1.	2.	3.	4.	5.	6.
Exercising/sports	1.	2.	3.	4.	5.	6.
Studying in the library	1.	2.	3.	4.	5.	6.
Studying with friends	1.	2.	3.	4.	5.	6.
Participating in extracurricular activities	1.	2.	3.	4.	5.	6.

W. What is your best guess as to the chances that you will:

	Very Good Chance	Some Chance	Very Little Chance	No Chance
Need extra time to complete your degree requirements?	1.	2.	3.	4.
Drop out of this college temporarily?	1.	2.	3.	4.
Transfer to another college before graduating?	1.	2.	3.	4.
Get a Bachelor's degree?	1.	2.	3.	4.
Make at least a "B" average?	1.	2.	3.	4.

Students have different views or perspectives on their college experiences and value different aspects of those experiences. Below is a series of statements describing a variety of orientations to the college experience. You will probably agree with some of the statements and disagree with others. There are no "right" answers here. Please circle the number on the scale below which indicates your level of agreement or disagreement with each statement.

	Strongly Disagree	Disagree	Agree	Strongly Agree
I enjoy investigating a topic of interest to me	1.	2.	3.	4.
In high school, I frequently questioned or challenged teachers' statements and ideas before I accepted them as right	1.	2.	3.	4.
What I learn in a course is more important than the grade I get	1.	2.	3.	4.
I prefer courses in which the material helps me understand something about myself	1.	2.	3.	4.
Learning about myself during college is probably more important than preparing for a career	1.	2.	3.	4.
Getting the best grades I can is very important to me	1.	2.	3.	4.
Whether or not I stay in college depends on circumstances beyond my control	1.	2.	3.	4.
I'd rather figure something out for myself than simply have it explained to me	1.	2.	3.	4.
I am willing to work very hard in a course in order to learn the material, even if it won't lead to a higher grade	1.	2.	3.	4.
The grade I get in a course depends on how hard the instructor grades, not on carefully I study	1.	2.	3.	4.
I've read books or articles with which I strongly disagree	1.	2.	3.	4.
When I don't understand something in a course I work at it until I do	1.	2.	3.	4.
I enjoy the challenge of learning complicated new material	1.	2.	3.	4.
Good luck is more important for academic success than hard work	1.	2.	3.	4.
I enjoy reading poetry and literature	1.	2.	3.	4.
I enjoy reading about science	1.	2.	3.	4.
I enjoy reading about history	1.	2.	3.	4.
Getting a good grade in a course depends more on being "naturally" smart than on how hard I work	1.	2.	3.	4.
My major purpose for being in college is to prepare myself for a career	1.	2.	3.	4.
I enjoy talking with people who have values different from mine because it helps me understand myself and my values better	1.	2.	3.	4.
I consider the best teachers to be those who can tie things learned in class to things that are important to me in my personal life	1.	2.	3.	4.
I can almost always do well in a course if I plan and organize my study time	1.	2.	3.	4.
It is more important to learn ideas and concepts in a course than it is to learn the facts and basic information presented	1.	2.	3.	4.
In high school, I often talked to my teachers outside of class about the ideas presented during class	1.	2.	3.	4.
When I have trouble learning the material in a course, it is because the teacher isn't doing a very good job teaching	1.	2.	3.	4.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Learning about people from different cultures is a very important part of a college education	1.	2.	3.	4.
Learning how to learn is important to me	1.	2.	3.	4.
I enjoy expressing my ideas in writing	1.	2.	3.	4.
In high school, I frequently did more reading in a course than was required simply because it interested me	1.	2.	3.	4.
The courses I enjoy the most are those that make me think about things from a different perspective	1.	2.	3.	4.
Learning is important to me because it will give me greater control over my life	1.	2.	3.	4.
I study more to maintain my grade-point average than to really understand the material	1.	2.	3.	4.
For me, one of the most important benefits of a college education will be a better understanding of myself and my values	1.	2.	3.	4.
Developing a clearer sense of who I am is very important to me	1.	2.	3.	4.
After I write about something, I see that subject differently	1.	2.	3.	4.
I prefer reading things that are relevant to my personal experience	1.	2.	3.	4.
If I have something good to read, I'm never bored	1.	2.	3.	4.
I enjoy taking courses that challenge my beliefs and values	1.	2.	3.	4.
When I do well on a test, it is usually because I was well prepared, not because the test was easy	1.	2.	3.	4.
My academic experiences (i.e. courses, labs, studying, discussions with faculty) will be the most enjoyable part of college	1.	2.	3.	4.
My academic experiences (i.e. courses, labs, studying, discussions with faculty) will be the most important part of college	1.	2.	3.	4.
I expect have frequent discussions with my teachers outside of class	1.	2.	3.	4.
I expect to have frequent discussion about class material with my classmates outside of class	1.	2.	3.	4.
I enjoy courses that are intellectually challenging	1.	2.	3.	4.
I enjoy having discussions with people whose ideas and values are different from my own	1.	2.	3.	4.
The real value of a college education lies in being introduced to different values	1.	2.	3.	4.
I can learn more from doing than from reading	1.	2.	3.	4.
I prefer exams requiring me to organize and interpret information or ideas over exams that ask me only to remember facts or information	1.	2.	3.	4.
In high school, I often had discussions with other students about ideas or concepts presented in classes	1.	2.	3.	4.
I prefer to do assignments in which I have to analyze and interpret what I've read rather than just summarize and report	1.	2.	3.	4.
Contact with individuals whose background (e.g. race, national origin) is different from my own is an essential part of my college education	1.	2.	3.	4.

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Comparison Group (Chemistry) Fall Questionnaire

BEGINNING STUDENT QUESTIONNAIRE

NAME _____
Last First Middle

STUDENT ID NUMBER _ _ _ _ _ _ _ _ _

IN THE QUESTIONS BELOW, CIRCLE THE BOLDFACE NUMBER THAT INDICATES THE CORRECT RESPONSE.

A. Age:

1. 18 or under
2. 19
3. 20
4. 21
5. 22 to 24
6. 25 to 29
7. 30 to 39
8. 40 or over

B. Marital Status:

1. Unmarried (including Single and Widowed)
2. Married
3. Separated/Divorced

C. What Type of School Did You Attend Just Prior to Entering this College?

1. High School
2. Vocational/Technical School
3. 2-year College
4. 4-year College or University
5. Other

D. How would you describe your program of study during school?

1. College Preparatory
2. Business
3. Vocational
4. General or Other

E. Where do you now live?

1. College Dorm
2. Fraternity or Sorority House
3. College Married Student Housing
4. Off-Campus Room or Apartment
5. Home of Parents or Relatives
6. Own Home
7. Other

F. Are You Currently Employed? 1. Yes 2. No

G. If Employed, Are You Employed:

1. On-Campus 2. Off-Campus

H. If Employed, How Many Hours Per Week Are You Working?

1. 1 to 10
2. 11 to 20
3. 21 to 30
4. 31 to 40
5. Over 40

I. Are You Currently Receiving Financial Aid?

1. Yes 2. No

J. What is the Highest Level of Education Completed by your Parents? (Circle one in each column)

	Father	Mother
Grammar school or less	1.	1.
Some high school	2.	2.
High school graduate	3.	3.
Post secondary other than college	4.	4.
Some College	5.	5.
College Degree	6.	6.
Some Graduate School	7.	7.
Graduate School	8.	8.
Professional (Law, Medicine,etc.)	9.	9.

K. What is the Highest Degree You Intend to Obtain?

1. None
2. Vocational Certificate
3. Associate (2-year) Degree
4. Bachelor's Degree (BA,BS,etc.)
5. Master's Degree (MA,MS,etc.)
6. Ph.D or ED.D
7. M.D.,D.O., D.D.S. or D.V.M
8. J.D. or LL.B. (Law)
9. Other

L. How many academic hours are you enrolled THIS QUARTER?

1. 6 hours or less
2. 7 - 12 hours
3. more than 12 hours

M. What is the general area of your likely major?

1. Liberal Arts (social sciences and humanities)
2. Science
3. Engineering
4. Business Adminstration
5. Health Sciences
6. Other
7. Undecided

N. How important is it for you to complete a University degree?

	from ANY university	from THIS university
Very important	1.	1.
Somewhat important	2.	2.
Slightly important	3.	3.
Not at all important	4.	4.

O. Which type of Class Format do you Most Prefer? (circle one)

1. Lecture Format
2. Small-group format with discussion
3. Independent Study with faculty member
4. Laboratory or Shop format
5. Other format
6. No Preference

P. How do you best learn? (circle one)

1. Alone
2. With friends
3. Being tutored
4. Tutoring Others
5. In a classroom lecture
6. In a classroom discussion
7. In a laboratory or shop
8. Don't know

R. Why Are You Taking Chemistry? (circle all that apply)

1. enjoy the subject
2. required for engineering
3. required for pre-med
4. required for other major
5. plan to major in chemistry
6. needed another science credit
7. needed an easy credit

S. Which of the following characteristics best describe people who major in science? (circle all that apply)

1. adventurous
2. aggressive
3. antisocial
4. arrogant
5. eccentric
6. friendly
7. individualistic
8. inquisitive
9. materialistic
10. single-minded
11. other _____

T. Are You Currently Enrolled in a Freshman Interest Group (FIG)?

1. Yes 2. No

U. How well prepared do you feel you are for University work in the following areas?

	Poor	Fair	Good	Very Good
a. Ability to write sentences in standard English	1.	2.	3.	4.
b. Ability to write a well-organized paper	1.	2.	3.	4.
c. Ability to write research paper	1.	2.	3.	4.
d. Reading comprehension	1.	2.	3.	4.
e. Ability to speak clearly, effectively	1.	2.	3.	4.
f. Vocabulary	1.	2.	3.	4.
g. Ability to use general mathematical computations	1.	2.	3.	4.
h. A foreign language(s) other than English	1.	2.	3.	4.
i. Ability to find library materials for research	1.	2.	3.	4.
j. Study skills for effective learning	1.	2.	3.	4.
k. Managing time for university work	1.	2.	3.	4.

V. During the last year in high school, how many hours did you spend during a typical week doing the following activities?

	0 hours	1 - 5 hours	6-10 hours	11-15 hours	16-20 hours	over 20 hours
Studying/homework	1.	2.	3.	4.	5.	6.
Socializing with friends	1.	2.	3.	4.	5.	6.
Talking with teachers outside of class	1.	2.	3.	4.	5.	6.
Working for pay	1.	2.	3.	4.	5.	6.
Volunteer work	1.	2.	3.	4.	5.	6.
Exercising/sports	1.	2.	3.	4.	5.	6.
Studying in the library	1.	2.	3.	4.	5.	6.
Studying with friends	1.	2.	3.	4.	5.	6.
Participating in extracurricular activities	1.	2.	3.	4.	5.	6.

W. What is your best guess as to the chances that you will:

	Very Good Chance	Some Chance	Very Little Chance	No Chance
Need extra time to complete your degree requirements?	1.	2.	3.	4.
Drop out of this college temporarily?	1.	2.	3.	4.
Transfer to another college before graduating?	1.	2.	3.	4.
Get a Bachelor's degree?	1.	2.	3.	4.
Make at least a "B" average?	1.	2.	3.	4.

Students have different views or perspectives on their college experiences and value different aspects of those experiences. Below is a series of statements describing a variety of orientations to the college experience. You will probably agree with some of the statements and disagree with others. There are no "right" answers here. Please circle the number on the scale below which indicates your level of agreement or disagreement with each statement.

	Strongly Disagree	Disagree	Agree	Strongly Agree
I enjoy investigating a topic of interest to me	1.	2.	3.	4.
In high school, I frequently questioned or challenged teachers' statements and ideas before I accepted them as right	1.	2.	3.	4.
What I learn in a course is more important than the grade I get	1.	2.	3.	4.
I prefer courses in which the material helps me understand something about myself	1.	2.	3.	4.
Learning about myself during college is probably more important than preparing for a career	1.	2.	3.	4.
Getting the best grades I can is very important to me	1.	2.	3.	4.
Whether or not I stay in college depends on circumstances beyond my control	1.	2.	3.	4.
I'd rather figure something out for myself than simply have it explained to me	1.	2.	3.	4.
I am willing to work very hard in a course in order to learn the material, even if it won't lead to a higher grade	1.	2.	3.	4.
The grade I get in a course depends on how hard the instructor grades, not on carefully I study	1.	2.	3.	4.
I've read books or articles with which I strongly disagree	1.	2.	3.	4.
When I don't understand something in a course I work at it until I do	1.	2.	3.	4.
I enjoy the challenge of learning complicated new material	1.	2.	3.	4.
Good luck is more important for academic success than hard work	1.	2.	3.	4.
I enjoy reading poetry and literature	1.	2.	3.	4.
I enjoy reading about science	1.	2.	3.	4.
I enjoy reading about history	1.	2.	3.	4.
Getting a good grade in a course depends more on being "naturally" smart than on how hard I work	1.	2.	3.	4.
My major purpose for being in college is to prepare myself for a career	1.	2.	3.	4.
I enjoy talking with people who have values different from mine because it helps me understand myself and my values better	1.	2.	3.	4.
I consider the best teachers to be those who can tie things learned in class to things that are important to me in my personal life	1.	2.	3.	4.
I can almost always do well in a course if I plan and organize my study time	1.	2.	3.	4.
It is more important to learn ideas and concepts in a course than it is to learn the facts and basic information presented	1.	2.	3.	4.
In high school, I often talked to my teachers outside of class about the ideas presented during class	1.	2.	3.	4.
When I have trouble learning the material in a course, it is because the teacher isn't doing a very good job teaching	1.	2.	3.	4.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Learning about people from different cultures is a very important part of a college education	1.	2.	3.	4.
Learning how to learn is important to me	1.	2.	3.	4.
I enjoy expressing my ideas in writing	1.	2.	3.	4.
In high school, I frequently did more reading in a course than was required simply because it interested me	1.	2.	3.	4.
The courses I enjoy the most are those that make me think about things from a different perspective	1.	2.	3.	4.
Learning is important to me because it will give me greater control over my life	1.	2.	3.	4.
I study more to maintain my grade-point average than to really understand the material	1.	2.	3.	4.
For me, one of the most important benefits of a college education will be a better understanding of myself and my values	1.	2.	3.	4.
Developing a clearer sense of who I am is very important to me	1.	2.	3.	4.
After I write about something, I see that subject differently	1.	2.	3.	4.
I prefer reading things that are relevant to my personal experience	1.	2.	3.	4.
If I have something good to read, I'm never bored	1.	2.	3.	4.
I enjoy taking courses that challenge my beliefs and values	1.	2.	3.	4.
When I do well on a test, it is usually because I was well prepared, not because the test was easy	1.	2.	3.	4.
My academic experiences (i.e. courses, labs, studying, discussions with faculty) will be the most enjoyable part of college	1.	2.	3.	4.
My academic experiences (i.e. courses, labs, studying, discussions with faculty) will be the most important part of college	1.	2.	3.	4.
I expect have frequent discussions with my teachers outside of class	1.	2.	3.	4.
I expect to have frequent discussion about class material with my classmates outside of class	1.	2.	3.	4.
I enjoy courses that are intellectually challenging	1.	2.	3.	4.
I enjoy having discussions with people whose ideas and values are different from my own	1.	2.	3.	4.
The real value of a college education lies in being introduced to different values	1.	2.	3.	4.
I can learn more from doing than from reading	1.	2.	3.	4.
I prefer exams requiring me to organize and interpret information or ideas over exams that ask me only to remember facts or information	1.	2.	3.	4.
In high school, I often had discussions with other students about ideas or concepts presented in classes	1.	2.	3.	4.
I prefer to do assignments in which I have to analyze and interpret what I've read rather than just summarize and report	1.	2.	3.	4.
Contact with individuals whose background (e.g. race, national origin) is different from my own is an essential part of my college education	1.	2.	3.	4.

Spring Follow-Up Questionnaire

Student Learning Project
School of Education
Syracuse University
Syracuse, New York 13244

General Instructions

Please respond to each item by circling the appropriate number.

Some of the questions of the survey may be difficult to answer after only a few months in the university. Nevertheless, we would like you to answer the questions as best you can.

All information you provide is **confidential**. Results of the study will be reported in group summary form only. The only identifying information on the survey is your name and student ID. This information will be kept separate from the data on a list accessible only to the project investigators.

When you have completed the survey, **please return it by using the enclosed pre-paid envelope**.

Thank you for your time and cooperation!

BEGINNING STUDENT QUESTIONNAIRE

NAME _____
Last First Middle

STUDENT ID NUMBER ___ ___ ___ ___ ___ ___ ___ ___ ___

DIRECTIONS: In the questions below **CIRCE THE BOLDFACE NUMBER** that indicates the correct response.

A. Where do you now live?

1. College Dorm
2. Fraternity or Sorority House
3. College Married Student Housing
4. Off-Campus Room or Apartment
5. Home of Parents or Relatives
6. Own Home
7. Other

B. Are you currently employed? 1. Yes 2. No

C. **IF EMPLOYED**, are you employed:

1. On-Campus 2. Off-Campus

D. **IF EMPLOYED**, how many hours per week are you working?

1. 1 to 10 hours
2. 11 to 20 hours
3. 21 to 30 hours
4. 31 to 40 hours
5. Over 40 hours

E. **IF EMPLOYED**, how does it affect your college work?

1. My job does not interfere with my college work.
2. My job takes some time from my college work.
3. My job takes a lot of time from my college work.

G. Are you currently receiving financial aid?

1. Yes 2. No

H. How many credit hours are you enrolled for during **THIS QUARTER**?

1. 6 credits or less
2. 7 - 12 credits
3. more than 12 credits

I. What is the highest degree you intend to obtain?

1. None
2. Vocational Certificate
3. Associate (2-year) Degree
4. Bachelor's Degree (BA,BS,etc.)
5. Master's Degree (MA,MS,etc.)
6. Ph.D or ED.D
7. M.D.,D.O., D.D.S. or D.V.M
8. J.D. or LL.B. (Law)
9. Other

J. How important is it for you to complete a college degree?

	from **ANY** college	from **THIS** college
Very important	1.	1.
Somewhat important	2.	2.
Slightly important	3.	3.
Not at all important	4.	4.

K. Which type of Class Format Do You **MOST** Prefer? (circle one)

1. Lecture format
2. Small-Group format
3. Independent study format
4. Laboratory or shop format
5. Private tutor format
6. Correspondence course format
7. Other format
8. No preference

L. How do you **BEST** learn? (circle one)

1. Alone
2. With friends
3. Being tutored
4. In a classroom lecture
5. In a classroom discussion
6. In a laboratory or shop
7. Do not know

M. What is your best guess as to the chances that you will:

	Very Good Chance	Some Chance	Very Little Chance	No Chance
Need extra time to complete your degree requirements?	1.	2.	3.	4.
Drop out of this college temporarily?	1.	2.	3.	4.
Transfer to another college before graduating?	1.	2.	3.	4.
Get a Bachelor's degree?	1.	2.	3.	4.
Make at least a "B" average?	1.	2.	3.	4.

N. About how many **HOURS A WEEK** do you usually spend on campus interacting with other students (not counting time in residence halls or fraternities/sororities)?

1. None
2. 1 to 5 hours
3. 6 to 10 hours
4. 13 to 20 hours
5. more than 20 hours

O. About how many **HOURS A WEEK** do you usually spend studying or preparing for your classes?

1. 1 to 5 hours
2. 6 to 10 hours
3. 11 to 15 hours
4. 16 to 20 hours
5. more than 20 hours

P. With whom do you study most of the time?

1. By myself
2. With friends from my classes
3. Other (please specify) _____

IF YOU WERE A MEMBER OF A FRESHMAN INTEREST GROUP, please answer the following questions:

R. Are you friends with any members of your Freshman Interest Group?

1. Yes 2. No

S. Are you taking classes **THIS QUARTER** with any members of your Freshman Interest Group?

1. Yes 2. No 3. Not Sure

T. **IF YES**, do you study with those students?

1. Yes 2. No

COLLEGE ACTIVITIES

Directions: In your experience at this college during the **CURRENT ACADEMIC YEAR**, about how often have you done each of the following? Indicate your responses by circling one of the choices to the right of each activity.

COURSE LEARNING

	Never	Occasionally	Often	Very Often
Participated in class discussions	1	2	3	4
Took detailed notes in class	1	2	3	4
Made outlines from class notes or readings	1	2	3	4
Underlined major points in the readings	1	2	3	4
Summarized major points and information from readings or notes	1	2	3	4
Worked on paper or project where you had to integrate ideas from various sources	1	2	3	4
Did additional readings on topics that were introduced and discussed in class	1	2	3	4
Thought about practical applications of the material	1	2	3	4
Studied course materials with other students	1	2	3	4
Tried to explain the material to another student or friend	1	2	3	4
Tried to see how different facts and ideas fit together	1	2	3	4
Considered the accuracy and credibility of information from different sources	1	2	3	4
Participated in self-assessment activities	1	2	3	4

LIBRARY EXPERIENCES

	Never	Occasionally	Often	Very Often
Used the library as a quiet place to read or study material you brought with you	1	2	3	4
Read something in the reserve book room or reference section	1	2	3	4
Checked out books to read (not textbooks)	1	2	3	4
Used the card catalogue or computer to find materials the library had on a topic	1	2	3	4
Prepared a bibliography or set of references for a term paper or report	1	2	3	4
Asked the librarian for help in finding materials on some topic	1	2	3	4
Used indexes (e.g. Readers Guide to Periodical Literature) to journal articles	1	2	3	4
Found some interesting material to read just by browsing in the stacks	1	2	3	4
Ran down leads, looked for further references that were cited in things you read	1	2	3	4
Gone back to read a basic reference or document to which authors had referred	1	2	3	4

EXPERIENCES WITH FACULTY

	Never	Occasionally	Often	Very Often
Talked with a faculty member	1	2	3	4
Asked your instructor for information related to a course you were taking grades, make-up work, assignments, etc.)	1	2	3	4
Made an appointment to meet with a faculty member in his/her office.	1	2	3	4
Visited informally and briefly with an instructor after class	1	2	3	4
Discussed your career plans and ambitions with a faculty member	1	2	3	4
Discussed ideas for a term paper or other class project with a faculty member	1	2	3	4
Asked your instructor for comments and criticisms about your work	1	2	3	4
Discussed personal problems or concerns with a faculty member	1	2	3	4
Had coffee, cokes, or snacks with a faculty member	1	2	3	4
Worked with a faculty member on a research project	1	2	3	4

EXPERIENCE IN WRITING

	Never	Occasionally	Often	Very Often
Used a dictionary or thesaurus to look up the proper meaning of words	1	2	3	4
Consciously and systematically thought about grammar, sentence structure, paragraphs, word choice and sequence of ideas as you were writing	1	2	3	4
Wrote a rough draft of a paper or essay and then revised it yourself before handing it in	1	2	3	4
Spent at least five hours or more writing a paper (not counting time spent in reading or at the library)	1	2	3	4
Asked other people to read something you write to see if it was clear to them	1	2	3	4
Referred to a book or manual about style of writing, grammar, etc.	1	2	3	4
Revised a paper or composition two or more times before you were satisfied with it	1	2	3	4
Asked an instructor for advice and help to improve your writing	1	2	3	4
Made an appointment to talk with an instructor who had criticized a paper you had written	1	2	3	4
Submitted for publication an article, story, or other composition you had written	1	2	3	4

PERSONAL EXPERIENCES

	Never	Occasionally	Often	Very Often
Told a friend why you reacted to another person the way you did	1	2	3	4
Discussed with other students why some groups get along smoothly and others groups do not	1	2	3	4
Sought out a friend to help you with a personal problem	1	2	3	4
Elected a course that dealt with understanding personal and social behavior	1	2	3	4
Identified with a character in a book or movie and wondered what you might have done under similar circumstances	1	2	3	4
Read articles or books about personal adjustment and personality development	1	2	3	4
Taken a test to measure your abilities, interests, or attitudes	1	2	3	4
Asked a friend to tell you what he/she really thought about you	1	2	3	4
Been in a group where each person, including yourself, talked about his/her personal problems	1	2	3	4
Talked with a counselor or other specialist about problems of a personal nature	1	2	3	4

STUDENT ACQUAINTANCES

	Never	Occasionally	Often	Very Often
Made friends with students I met in my classes	1	2	3	4
Made friends with students whose academic major field was very different from yours	1	2	3	4
Made friends with students whose interests were very different from yours	1	2	3	4
Made friends with students whose family background (economic and social) was very different from yours	1	2	3	4
Made friends with students whose race was different from yours	1	2	3	4
Had serious discussions with students whose philosophy of life or personal values were very different from yours	1	2	3	4
Had serious discussions with students whose political opinions or religious beliefs were very different from yours	1	2	3	4

BEST COPY AVAILABLE

ARTS, MUSIC, AND THEATER ACTIVITIES

	Never	Occasionally	Often	Very Often
Talked about art (painting, sculpture, architecture, artists, etc.) with other students at the university	1	2	3	4
Participated in some art activity (painting, pottery, weaving, drawing, etc.)	1	2	3	4
Talked about music (classical, popular, musicians, etc.) with other students at the university	1	2	3	4
Talked about theater (plays, musicals, dance, etc.) with other students at the university	1	2	3	4
Went to an art gallery or art exhibit on the campus	1	2	3	4
Attended a concert or other musical event at the university	1	2	3	4
Participated in some music activity (orchestra, chorus, etc.)	1	2	3	4
Attended a play, dance concert, or other theater performance at the university	1	2	3	4
Participated in or worked on some theatrical production (acted, danced, worked on scenery, etc.)	1	2	3	4

CLUBS AND ORGANIZATIONS

	Never	Occasionally	Often	Very Often
Looked in the student newspaper for notices about campus events and student organizations	1	2	3	4
Attended a program or event put on by a student group	1	2	3	4
Attended a meeting of a club, organization, or student government group	1	2	3	4
Discussed policies and issues related to campus activities and student government	1	2	3	4
Worked in some student organization or special project (publications, student government, social event, etc.)	1	2	3	4
Played on an intramural team	1	2	3	4

ESTIMATE OF GAINS

DIRECTIONS: In thinking over your experiences in this university up to now, to what extent do you think you have gained or made progress in each of the following areas? Please **circle one response** for each item.

I HAVE GAINED OR MADE PROGRESS IN:	Little	Some	Quite A Bit	Very Much
Acquiring knowledge and skills applicable to a specific job or type of work	1	2	3	4
Acquiring background and specialization for further education in some professional, scientific, or scholarly field	1	2	3	4
Gaining a broad general education about different fields of knowledge	1	2	3	4
Gaining a range of information that may be relevant to a career	1	2	3	4
Developing an understanding and enjoyment of art, music, and drama	1	2	3	4
Broadening my acquaintance and enjoyment of literature	1	2	3	4
Writing clearly and effectively	1	2	3	4
Acquiring familiarity with the use of computers	1	2	3	4
Becoming aware of different philosophies, cultures, and ways of life	1	2	3	4
Developing my own values and ethical standards	1	2	3	4
Understanding myself – my abilities, interests and personality	1	2	3	4
Understanding other people and the ability to get along with different kinds of people	1	2	3	4
Ability to function as a team member	1	2	3	4
Developing good health habits and physical fitness	1	2	3	4
Understanding the nature of science and experimentation	1	2	3	4
Understanding new scientific and technical developments	1	2	3	4
Becoming aware of the consequences (benefits/hazards/dangers/values) of new applications in science and technology	1	2	3	4
Ability to think analytically and logically	1	2	3	4
Quantitative thinking - understanding probabilities, proportions, etc	1	2	3	4
Ability to put idea together, to see relationships, similarities, and differences between ideas	1	2	3	4
Ability to learn on my own, pursue ideas, and find information I need	1	2	3	4
Seeing the importance of history for understanding the present and the past	1	2	3	4
Gaining knowledge about other parts of the world and other people (Asia, Africa, South America, etc.)	1	2	3	4

COLLEGE ENVIRONMENT

DIRECTIONS: Universities differ from one another in the degree to which they emphasize or stress various aspects of student development? Thinking of your own experience at this University, to what extent do you feel that each of the following is emphasized? The responses are numbered from 7 to 1 with the highest and lowest points described. **CIRCLE THE NUMBER** that best indicates your impression of this university on this seven-point rating scale.

Emphasis on the development of academic scholarly, and intellectual abilities

Strong emphasis	7	6	5	4	3	2	1	**Weak Emphasis**

Emphasis on the development of esthetic, expressive, and creative qualities

Strong emphasis	7	6	5	4	3	2	1	**Weak Emphasis**

Emphasis on being critical, evaluative and analytical

Strong emphasis	7	6	5	4	3	2	1	**Weak emphasis**

Emphasis on the development of vocational and occupational competence

Strong emphasis	7	6	5	4	3	2	1	**Weak emphasis**

Emphasis on the personal relevance and practical value of your courses

Strong emphasis	7	6	5	4	3	2	1	**Weak emphasis**

The next seven items refer to relationships among people and attributes of the institution. Again thinking of your own experience, how would you rates these people and attributes on a seven point scale? Please **CIRCLE THE NUMBER** that best describes your judgment.

Other students

Friendly, Supportive Sense of Belonging	7	6	5	4	3	2	1	**Unfriendly, Unsupportive Sense of Isolation**

Faculty members

Approachable, Helpful Understanding, Encouraging	7	6	5	4	3	2	1	**Remote, Discouraging Unsympathetic**

Administrative personnel and offices

Helpful, Considerate Flexible	7	6	5	4	3	2	1	**Rigid, Impersonal Bound by Regulations**

Classes

Stimulating, Involving	7	6	5	4	3	2	1	**Boring, Dull**

Campus Climate

Hospitable	7	6	5	4	3	2	1	**Inhospitable**

Yourself

Involved, Excited	7	6	5	4	3	2	1	**Alientated, Bored**

OUTCOMES

DIRECTIONS: The following questions ask about your plans and feelings about the University and, if appropriate, the Freshman Interest Groups. Please feel free to continue your responses on the back of the page.

A. Do you intend to re-enroll in the University in the 1992 Fall Quarter?

1. Yes
2. No
3. Not Sure

B. If you could start over again, would you enroll in this university?

1. Yes
2. No
3. Not Sure

C. If you could start over again, would you enroll in a Freshman Interest Group?

1. Yes
2. No
3. Not Sure

IF YOU ENROLLED IN A FRESHMAN INTEREST GROUP, please answer the following questions:

D. Would you recommend Freshman Interest Groups to a friend?

1. Yes
2. No

E. Why or Why Not? (please explain)_____

_____

_____

_____

F. Is there anything else about the Freshman Interest Groups you would like to tell us about?

(Please explain)_____

_____

_____

_____

_____

APPENDIX B

DESCRIPTIVE DATA

DATA TABLES FROM UNIVERSITY OF WASHINGTON STUDENT PANEL

TABLE B-1

AGE DISTRIBUTION AMONG FRESHMAN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

AGE	FIG	SOCIOLOGY	CHEMISTRY
18 or under	89.4 (228)	86.2 (75)	86.8 (92)
19	9.8 (25)	11.5 (10)	9.4 (10)
20	*	1.1 (1)	0.9 (1)
21	0.4 (1)	1.1 (1)	*
22 to 24	0.4 (1)	*	*
25 to 29	*	*	*
over 30	*	*	2.8 (3)

where * indicates empty cell

TABLE B-2

MARITAL STATUS OF FRESHMAN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parenthesis)

MARITAL STATUS	FIG	SOCIOLOGY	CHEMISTRY
Unmarried	99.6 (254)	100.0 (87)	98.1 (104)
Married	*	*	1.9 (2)
Separated/Divorced	0.4 (1)	*	*

where * indicates empty cell

TABLE B-3

TYPE OF SCHOOL ATTENDED PRIOR TO COLLEGE BY FRESHMAN INTEREST GROUP AND COMPARISON CLASSE STUDENTS

(percentages with numbers in parenthesis)

SCHOOL TYPE	FIG	SOCIOLOGY	CHEMISTRY
High School	99.6 (252)	97.7 (85)	94.3 (99)
Technical/Vocational	*	*	*
Two-year college	*	1.2 (1)	1.9 (2)
Four-year college	0.4 (1)	1.2 (1)	1.9 (2)
Other	*	*	1.9 (2)

where * indicates empty cell

TABLE B-4

PROGRAM OF STUDY DURING HIGH SCHOOL FOR FRESHMAN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

PROGRAM OF STUDY	FIG	SOCIOLOGY	CHEMISTRY
College Preparatory	81.3 (205)	68.2 (58)	90.5 (95)
Business	3.6 (9)	4.7 (4)	*
Vocational	*	2.3 (2)	*
General or Other	15.1 (38)	24.7 (21)	9.5 (10)

where * indicates empty cell

TABLE B-5

PLACE OF RESIDENCE OF FRESHMAN INTEREST GROUP AND COMPARISON GROUP CLASS STUDENTS

(percentages with numbers in parentheses)

PLACE OF RESIDENCE	FIG	SOCIOLOGY	CHEMISTRY
College Dorm	60.3 (154)	46.0 (40)	55.7 (59)
Fraternity/Sorority House	18.4 (47)	32.2 (28)	11.3 (12)
College Married Student Housing	*	*	1.0 (1)
Off-Campus Room or Apartment	4.3 (11)	2.3 (2)	1.0 (8)
Home of Parents or Relative	15.3 (39)	19.5 (17)	24.5 (26)
Own Home	0.8 (2)	*	*
Other	0.8 (2)	*	*

where * indicates empty cell

TABLE B-6

CURRENT EMPLOYMENT OF FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

EMPLOYED	FIG	SOCIOLOGY	CHEMISTRY
Yes	22.0 (56)	29.9 (26)	19.9 (21)
No	78.0 (199)	70.1 (61)	80.2 (85)

where * indicates empty cell

TABLE B-7

IF EMPLOYED, LOCATION OF EMPLOYMENT OF FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

WHERE EMPLOYED	FIG	SOCIOLOGY	CHEMISTRY
On-Campus	31.5 (17)	38.5 (10)	38.1 (8)
Off-Campus	68.5 (37)	61.5 (16)	62.0 (13)

where * indicates empty cell

TABLE B-8

IF EMPLOYED, HOURS WORKED PER WEEK OF FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

HOURS EMPLOYED	FIG	SOCIOLOGY	CHEMISTRY
1 to 10	27.3 (15)	30.8 (8)	28.6 (6)
11 to 20	54.6 (30)	38.5 (10)	62.0 (13)
21 to 30	14.6 (8)	27.0 (7)	9.6 (2)
31 to 40	1.8 (1)	3.9 (1)	*
Over 40	1.8 (1)	*	*

where * indicates empty cell

TABLE B-9

FINANCIAL AID AMONG FRESHMEN INTEREST GROUP AND COMPARISON GROUP CLASS STUDENTS

(percentages with numbers in parentheses)

FINANCIAL AID	FIG	SOCIOLOGY	CHEMISTRY
Yes	28.6 (72)	32.6 (28)	29.5 (31)
No	71.4 (180)	67.4 (58)	70.5 (74)

where * indicates empty cell

TABLE B-10

FATHER'S EDUCATION OF FRESHMEN INTEREST GROUP AND COMPARISON GROUP CLASS STUDENTS

(percentages with numbers in parentheses)

FATHER'S EDUCATION	FIG	SOCIOLOGY	CHEMISTRY
Grammar school or less	0.8 (2)	2.4 (2)	2.9 (3)
Some high school	1.2 (3)	2.4 (2)	*
High school graduate	10.0 (25)	14.3 (12)	11.5 (12)
Post secondary other than college	4.0 (10)	2.4 (2)	6.7 (7)
Some College	18.8 (47)	11.9 (10)	16.3 (17)
College Degree	35.2 (88)	33.3 (28)	30.7 (32)
Some Graduate School	5.6 (14)	6.0 (5)	1.9 (2)
Graduate School	17.6 (44)	16.7 (14)	22.1 (23)
Professional (Law, Medicine, etc.)	6.8 (17)	10.7 (9)	7.7 (8)

where * indicates empty cell

TABLE B-11

MOTHER'S EDUCATION OF FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

MOTHER'S EDUCATION	FIG	SOCIOLOGY	CHEMISTRY
Grammar school or less	1.6 (4)	3.4 (3)	2.9 (3)
Some high school	3.2 (8)	2.3 (2)	1.9 (2)
High school graduate	13.7 (34)	16.1 (14)	20.2 (21)
Post secondary other than college	6.8 (17)	9.2 (8)	5.8 (6)
Some College	27.3 (68)	23.0 (20)	18.2 (19)
College Degree	30.1 (75)	25.3 (22)	31.7 (33)
Some Graduate School	6.4 (16)	1.2 (1)	9.6 (10)
Graduate School	9.2 (23)	14.9 (13)	9.6 (10)
Professional (Law, Medicine)	1.6 (4)	4.6 (4)	*

where * indicates empty cell

TABLE B-12

HIGHEST DEGREE INTENDED BY FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

HIGHEST DEGREE INTENDED	FIG	SOCIOLOGY	CHEMISTRY
None	*	*	*
Vocational Certification	*	*	*
Associate (2-year) Degree	*	*	*
Bachelor's Degree (BA,BS,etc.)	23.6 (56)	19.3 (16)	11.5 (12)
Master's Degree (MA,MS,etc.)	43.5 (103)	44.6 (37)	36.5 (38)
Ph.D or Ed.D	16.0 (38)	12.0 (10)	24.0 (25)
M.D.,D.O.,D.D.S. or D.V.M.	13.9 (33)	15.7 (13)	26.9 (28)
J.D. or LL.B. (Law)	2.5 (6)	7.2 (6)	1.0 (1)
Other	0.4 (1)	1.2 (1)	*

where * indicates empty cell

TABLE B-13

ENROLLED ACADEMIC HOURS AMONG FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS THIS QUARTER?

(percentages with numbers in parentheses)

ACADEMIC HOURS (THIS QUARTER)	FIG	SOCIOLOGY	CHEMISTRY
6 hours or less	9.7 (24)	27.4 (23)	8.7 (9)
7-12 hours	2.4 (6)	15.5 (13)	6.7 (7)
more than 12 hours	87.9 (218)	57.1 (48)	84.6 (88)

where * indicates empty cell

TABLE B-14

LIKELY MAJOR AMONG FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

LIKELY MAJOR	FIG	SOCIOLOGY	CHEMISTRY
Liberal Arts	14.1 (34)	31.8 (27)	*
Science	14.5 (35)	7.1 (6)	26.7 (27)
Engineering	31.4 (76)	7.1 (6)	45.5 (46)
Business Admin.	9.5 (23)	27.1 (23)	1.0 (1)
Health Sciences	15.7 (38)	9.4 (8)	20.8 (21)
Other	3.7 (9)	3.5 (3)	1.0 (1)
Undecided	11.2 (27)	14.1 (12)	5.0 (5)

where * indicates empty cell

TABLE B-15

IMPORTANCE OF COMPLETING A COLLEGE DEGREE FROM ANY UNIVERSITY AMONG FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

COMPLETE DEGREE (ANY UNIVERSITY)	FIG	SOCIOLOGY	CHEMISTRY
Very important	85.1 (165)	78.1 (50)	88.3 (68)
Important	13.9 (27)	18.8 (12)	6.5 (5)
Slightly important	1.0 (2)	3.1 (2)	1.3 (1)
Not at all important	*	*	3.9 (3)

where * indicates empty cell

TABLE B-16

IMPORTANCE OF COMPLETING A COLLEGE DEGREE FROM THIS UNIVERSITY AMONG FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

COMPLETE DEGREE (THIS UNIVERSITY)	FIG	SOCIOLOGY	CHEMISTRY
Very important	61.3 (144)	70.0 (56)	69.7 (69)
Important	28.5 (67)	23.8 (19)	22.2 (22)
Slightly important	8.5 (20)	3.8 (3)	7.0 (7)
Not at all important	1.7 (4)	2.5 (2)	1.0 (1)

where * indicates empty cell

TABLE B-17

PREFERRED CLASS FORMAT AMONG FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS

(percentages with numbers in parentheses)

CLASS FORMAT	FIG	SOCIOLOGY	CHEMISTRY
Lecture Format	11.8 (29)	10.7 (9)	11.3 (12)
Small-group format with discussion	60.1 (148)	72.6 (61)	68.9 (73)
Independent Study with faculty member	5.2 (13)	*	4.7 (5)
Laboratory or Shop Format	2.0 (5)	3.6 (3)	0.9 (1)
Other Format	1.2 (3)	*	0.9 (1)
No Preference	19.5 (48)	13.1 (11)	13.2 (14)

where * indicates empty cell

TABLE B-18

PREFERRED LEARNING SETTING AMONG FRESHMEN INTEREST GROUP

(percentages with numbers in parentheses)

PREFERRED LEARNING SETTING	FIG	SOCIOLOGY	CHEMISTRY
Alone	17.1 (41)	16.5 (14)	28.7 (29)
With friends	17.1 (41)	11.8 (10)	17.9 (18)
Being tutored	8.0 (19)	15.3 (13)	11.9 (12)
Tutoring others	3.8 (9)	1.1 (1)	2.0 (2)
Classroom lecture	5.0 (12)	4.8 (4)	*
Classroom discussion	31.8 (76)	41.1 (35)	28.7 (29)
Laboratory or shop	0.4 (1)	1.2 (1)	3.0 (3)
Don't know	16.7 (40)	8.2 (7)	8.0 (8)

where * indicates empty cell

TABLE B-19

HOW WELL PREPARED DO FRESHMEN INTEREST GROUP AND COMPARISON CLASS STUDENTS FEEL FOR UNIVERSITY WORK IN THE FOLLOWING AREAS?

(percentages with numbers in parentheses)

WRITE SENTENCES IN ENGLISH	FIG	SOCIOLOGY	CHEMISTRY
Poor	*	*	0.9 (1)
Fair	6.3 (16)	7.1 (6)	6.6 (7)
Good	37.3 (95)	38.8 (33)	37.0 (39)
Very Good	56.5 (144)	54.1 (46)	55.7 (59)

WRITE WELL-ORGANIZED PAPER	FIG	SOCIOLOGY	CHEMISTRY
Poor	0.4 (1)	*	0.9 (1)
Fair	15.3 (39)	21.1 (18)	9.4 (10)
Good	61.1 (156)	49.4 (42)	52.8 (56)
Very Good	23.1 (59)	29.4 (25)	36.8 (39)

WRITE RESEARCH PAPER	FIG	SOCIOLOGY	CHEMISTRY
Poor	1.1 (3)	*	1.9 (2)
Fair	28.1 (71)	31.0 (26)	20.0 (21)
Good	51.8 (131)	51.2 (43)	52.4 (55)
Very Good	19.0 (48)	17.9 (15)	25.7 (27)

where * indicates empty cell

TABLE B-19 (continued)

READING COMPREHENSION	FIG	SOCIOLOGY	CHEMISTRY
Poor	2.4 (6)	*	2.9 (3)
Fair	18.0 (46)	19.1 (16)	15.2 (16)
Good	53.3 (136)	50.0 (42)	46.7 (49)
Very Good	26.2 (67)	31.0 (26)	35.2 (37)

SPEAK CLEARLY AND EFFECTIVELY	FIG	SOCIOLOGY	CHEMISTRY
Poor	2.4 (6)	2.4 (2)	1.9 (2)
Fair	19.4 (49)	15.7 (13)	16.2 (17)
Good	48.6 (123)	41.0 (34)	43.8 (46)
Very Good	29.6 (75)	41.0 (34)	38.1 (40)

USE OF VOCABULARY	FIG	SOCIOLOGY	CHEMISTRY
Poor	2.8 (7)	1.1 (1)	4.7 (5)
Fair	32.7 (83)	30.6 (26)	31.1 (33)
Good	48.4 (123)	48.2 (41)	50.0 (53)
Very Good	16.1 (41)	20.0 (17)	14.2 (15)

where * indicates empty cell

TABLE B-19 (continued)

DO MATHEMATICAL COMPUTATIONS	FIG	SOCIOLOGY	CHEMISTRY
Poor	1.6 (4)	3.5 (3)	2.8 (3)
Fair	16.1 (41)	23.5 (20)	1.9 (2)
Good	40.4 (103)	40.0 (34)	44.3 (47)
Very Good	42.0 (107)	32.9 (28)	50.9 (54)

SPEAK A FOREIGN LANGUAGE	FIG	SOCIOLOGY	CHEMISTRY
Poor	22.3 (56)	15.7 (13)	24.5 (26)
Fair	43.8 (110)	55.4 (46)	32.1 (34)
Good	23.5 (59)	21.7 (18)	30.2 (32)
Very Good	10.4 (26)	7.2 (6)	13.2 (14)

FIND LIBRARY MATERIALS	FIG	SOCIOLOGY	CHEMISTRY
Poor	7.9 (20)	7.3 (6)	4.7 (5)
Fair	34.2 (87)	26.8 (22)	29.2 (31)
Good	41.7 (106)	51.2 (42)	44.3 (47)
Very Good	16.1 (41)	14.6 (12)	21.7 (23)

where * indicates empty cell

TABLE B-19 (continued)

STUDY SKILLS	FIG	SOCIOLOGY	CHEMISTRY
Poor	1.2 (3)	1.2 (1)	0.9 (1)
Fair	22.1 (56)	32.9 (28)	19.8 (21)
Good	59.5 (151)	52.9 (45)	50.0 (53)
Very Good	17.3 (44)	12.9 (11)	29.2 (31)

MANAGING TIME	FIG	SOCIOLOGY	CHEMISTRY
Poor	2.4 (6)	*	1.9 (2)
Fair	25.5 (64)	34.1 (29)	15.2 (16)
Good	48.6 (122)	41.2 (35)	59.1 (62)
Very Good	23.5 (59)	24.7 (21)	23.8 (25)

where * indicates empty cell

TABLE B-20

DURING THE LAST YEAR IN HIGH SCHOOL, HOW MANY HOURS DID YOU SPEND DURING A TYPICAL WEEK DOING THE FOLLOWING ACTIVITIES?

STUDYING/DOING HOMEWORK

(percentages with numbers in parentheses)

STUDYING/HOMEWORK	FIG	SOCIOLOGY	CHEMISTRY
0 hours	1.2 (3)	3.5 (3)	2.9 (3)
1-5 hours	39.4 (100)	48.8 (42)	37.1 (39)
6-10 hours	29.5 (75)	24.4 (21)	32.4 (34)
11-15 hours	17.3 (44)	16.3 (14)	11.4 (12)
16-20 hours	9.5 (24)	4.7 (4)	9.5 (10)
over 20 hours	3.2 (8)	2.3 (2)	6.7 (7)

where * indicates empty cell

TABLE B-21

DURING THE LAST YEAR IN HIGH SCHOOL, HOW MANY HOURS DID YOU SPEND DURING A TYPICAL WEEK DOING THE FOLLOWING ACTIVITIES?

SOCIALIZING WITH FRIENDS

(percentages with numbers in parentheses)

SOCIALIZING WITH FRIENDS	FIG	SOCIOLOGY	CHEMISTRY
0 hours	0.8 (2)	*	1.0 (1)
1-5 hours	15.4 (39)	8.2 (7)	27.2 (28)
6-10 hours	26.5 (67)	24.7 (21)	21.4 (22)
11-15 hours	21.0 (53)	23.5 (20)	28.1 (29)
16-20 hours	18.2 (46)	22.4 (19)	13.6 (14)
over 20 hours	18.2 (46)	21.2 (18)	8.8 (9)

where * indicates empty cell

TABLE B-22

DURING THE LAST YEAR IN HIGH SCHOOL, HOW MANY HOURS DID YOU SPEND DURING A TYPICAL WEEK DOING THE FOLLOWING ACTIVITIES?

TALKING WITH TEACHERS OUTSIDE OF CLASS

(percentages with numbers in parentheses)

TALKING WITH TEACHERS	FIG	SOCIOLOGY	CHEMISTRY
0 hours	23.6 (59)	18.8 (16)	20.2 (21)
1-5 hours	71.2 (178)	58.8 (50)	73.1 (76)
6-10 hours	5.2 (13)	16.5 (14)	5.8 (6)
11-15 hours	*	2.4 (2)	*
16-20 hours	*	3.5 (3)	1.0 (1)
over 20 hours	*	*	*

where * indicates empty cell

TABLE B-23

DURING THE LAST YEAR IN HIGH SCHOOL, HOW MANY HOURS DID YOU SPEND DURING A TYPICAL WEEK DOING THE FOLLOWING ACTIVITIES?

WORKING FOR PAY

(percentages with numbers in parentheses)

WORKING FOR PAY	FIG	SOCIOLOGY	CHEMISTRY
0 hours	35.1 (88)	32.9 (28)	37.1 (39)
1-5 hours	7.2 (18)	9.4 (8)	4.8 (5)
6-10 hours	11.6 (29)	14.1 (12)	10.5 (11)
11-15 hours	14.3 (36)	15.3 (13)	13.3 (14)
16-20 hours	17.5 (44)	12.9 (11)	17.1 (18)
over 20 hours	14.3 (36)	15.3 (13)	17.1 (18)

where * indicates empty cell

TABLE B-24

DURING THE LAST YEAR IN HIGH SCHOOL, HOW MANY HOURS DID YOU SPEND DURING A TYPICAL WEEK DOING THE FOLLOWING ACTIVITIES?

VOLUNTEER WORK

(percentages with numbers in parentheses)

VOLUNTEER WORK	FIG	SOCIOLOGY	CHEMISTRY
0 hours	48.4 (121)	43.2 (35)	57.1 (60)
1-5 hours	40.0 (100)	40.7 (33)	29.5 (31)
6-10 hours	7.6 (19)	12.4 (10)	8.6 (9)
11-15 hours	2.0 (5)	2.5 (2)	2.9 (3)
16-20 hours	0.8 (2)	1.2 (1)	*
over 20 hours	1.2 (3)	*	1.9 (2)

where * indicates empty cell

TABLE B-25

DURING THE LAST YEAR IN HIGH SCHOOL, HOW MANY HOURS DID YOU SPEND DURING A TYPICAL WEEK DOING THE FOLLOWING ACTIVITIES?

EXERCISING/SPORTS

(percentages with numbers in parentheses)

EXERCISING/SPORTS	FIG	SOCIOLOGY	CHEMISTRY
0 hours	8.9 (22)	2.4 (2)	1.9 (2)
1-5 hours	30.7 (76)	22.6 (19)	35.0 (36)
6-10 hours	23.8 (59)	23.8 (20)	25.2 (26)
11-15 hours	17.3 (43)	31.0 (26)	23.3 (24)
16-20 hours	12.9 (32)	10.7 (9)	8.7 (9)
over 20 hours	6.5 (16)	9.5 (8)	5.8 (6)

where * indicates empty cell

TABLE B-26

DURING THE LAST YEAR IN HIGH SCHOOL, HOW MANY HOURS DID YOU SPEND DURING A TYPICAL WEEK DOING THE FOLLOWING ACTIVITIES?

STUDYING IN THE LIBRARY

(percentages with numbers in parentheses)

STUDYING IN LIBRARY	FIG	SOCIOLOGY	CHEMISTRY
0 hours	49.2 (124)	35.3 (30)	40.2 (41)
1-5 hours	45.6 (115)	52.9 (45)	49.0 (50)
6-10 hours	3.2 (8)	7.1 (6)	8.8 (9)
11-15 hours	1.2 (3)	3.5 (3)	1.0 (1)
16-20 hours	0.8 (2)	1.2 (1)	1.0 (1)
over 20 hours	*	*	*

where * indicates empty cell

TABLE B-27

DURING THE LAST YEAR IN HIGH SCHOOL, HOW MANY HOURS DID YOU SPEND DURING A TYPICAL WEEK DOING THE FOLLOWING ACTIVITIES?

STUDYING WITH FRIENDS

(percentages with numbers in parentheses)

STUDYING WITH FRIENDS	FIG	SOCIOLOGY	CHEMISTRY
0 hours	33.7 (85)	25.6 (22)	38.5 (40)
1-5 hours	54.4 (137)	53.5 (46)	50.0 (52)
6-10 hours	9.1 (23)	16.3 (14)	9.6 (10)
11-15 hours	1.2 (3)	3.5 (3)	1.9 (2)
16-20 hours	0.4 (1)	1.1 (1)	*
over 20 hours	1.2 (3)	*	*

where * indicates empty cell

TABLE B-28

DURING THE LAST YEAR IN HIGH SCHOOL, HOW MANY HOURS DID YOU SPEND DURING A TYPICAL WEEK DOING THE FOLLOWING ACTIVITIES?

PARTICIPATING IN EXTRACURRICULAR ACTIVITIES

(percentages with numbers in parentheses)

EXTRACURRICULAR ACTIVITIES	FIG	SOCIOLOGY	CHEMISTRY
0 hours	6.8 (17)	1.2 (1)	11.4 (12)
1-5 hours	29.1 (73)	22.1 (19)	29.5 (31)
6-10 hours	26.7 (67)	26.7 (23)	31.4 (33)
11-15 hours	19.5 (49)	20.9 (18)	12.4 (13)
16-20 hours	11.6 (29)	15.1 (13)	8.6 (9)
over 20 hours	6.4 (16)	14.0 (12)	6.7 (7)

where * indicates empty cell

TABLE B-29

WHAT IS YOUR BEST GUESS AS TO THE CHANCES THAT YOU WILL:

NEED EXTRA TIME TO COMPLETE YOUR DEGREE REQUIREMENTS?

(percentages with numbers in parentheses)

EXTRA TIME TO COMPLETE DEGREE	FIG	SOCIOLOGY	CHEMISTRY
Very Good Chance	20.8 (53)	20.9 (18)	21.7 (23)
Some Chance	52.2 (133)	54.7 (47)	46.2 (49)
Very Little Chance	24.3 (62)	23.3 (20)	27.4 (29)
No Chance	2.8 (7)	1.2 (1)	4.7 (5)

where * indicates empty cell

TABLE B-30

WHAT IS YOUR BEST GUESS AS TO THE CHANCES THAT YOU WILL:

DROP OUT OF THIS COLLEGE TEMPORARILY?

(percentages with numbers in parentheses)

DROP OUT TEMPORARILY	FIG	SOCIOLOGY	CHEMISTRY
Very Good Chance	*	1.2 (1)	*
Some Chance	5.9 (15)	5.9 (5)	8.5 (9)
Very Little Chance	38.8 (99)	35.3 (30)	25.5 (27)
No Chance	55.3 (141)	57.7 (49)	66.0 (70)

where * indicates empty cell

TABLE B-31

WHAT IS YOUR BEST GUESS AS TO THE CHANCES THAT YOU WILL:

TRANSFER TO ANOTHER COLLEGE BEFORE GRADUATING?

(percentages with numbers in parentheses)

TRANSFER BEFORE GRAUDATION	FIG	SOCIOLOGY	CHEMISTRY
Very Good Chance	2.4 (6)	4.7 (4)	3.8 (4)
Some Chance	28.1 (71)	25.9 (22)	22.6 (24)
Very Little Chance	45.5 (115)	37.7 (32)	47.2 (50)
No Chance	24.1 (61)	31.8 (27)	26.4 (28)

where * indicates empty cell

TABLE B-32

WHAT IS YOUR BEST GUESS AS TO THE CHANCES THAT YOU WILL:

GET A BACHELOR'S DEGREE?

(percentages with numbers in parentheses)

GET BACHELOR'S DEGREE	FIG	SOCIOLOGY	CHEMISTRY
Very Good Chance	91.4 (233)	83.5 (71)	85.7 (90)
Some Chance	7.8 (20)	16.5 (14)	14.3 (15)
Very Little Chance	0.4 (1)	*	*
No Chance	0.4 (1)	*	*

where * indicates empty cell

TABLE B-33

WHAT IS YOUR BEST GUESS AS TO THE CHANCES THAT YOU WILL:

MAKE AT LEAST A "B" AVERAGE?

(percentages with numbers in parentheses)

MAKE AT LEAST "B" AVERAGE	FIG	SOCIOLOGY	CHEMISTRY
Very Good Chance	67.1 (171)	49.4 (42)	69.8 (74)
Some Chance	32.9 (84)	48.2 (41)	30.2 (32)
Very Little Chance	*	2.4 (2)	*
No Chance	*	*	*

where * indicates empty cell

TABLE B-34

I ENJOY INVESTIGATING A TOPIC OF INTEREST TO ME

(percentages with numbers in parentheses)

ENJOY INVESTIGATING TOPIC OF INTEREST	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	*	1.2 (1)	1.2 (2)
Disagree	1.6 (4)	2.3 (2)	1.9 (2)
Agree	49.6 (126)	54.7 (47)	42.9 (45)
Strongly Disagree	48.8 (124)	41.9 (36)	53.3 (56)

where * indicates empty cell

TABLE B-35

IN HIGH SCHOOL, I FREQUENTLY QUESTIONED OR CHALLENGED TEACHERS' STATEMENTS AND IDEAS BEFORE I ACCEPTED THEM AS RIGHT

(percentages with numbers in parentheses)

CHALLENGED TEACHERS' STATEMENTS AND IDEAS	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	2.4 (6)	2.3 (2)	3.9 (4)
Disagree	38.6 (98)	51.2 (44)	41.4 (43)
Agree	41.7 (106)	27.9 (24)	39.4 (41)
Strongly Agree	17.3 (44)	18.6 (16)	15.4 (16)

where * indicates empty cell

TABLE B-36

WHAT I LEARN IN A COURSE IS MORE IMPORTANT THAN THE GRADE I GET

(percentages with numbers in parentheses)

LEARNING VERSUS GRADE	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	3.6 (9)	4.8 (4)	3.9 (4)
Disagree	26.5 (66)	32.5 (27)	15.5 (16)
Agree	55.4 (138)	50.6 (42)	61.1 (63)
Strongly Agree	14.5 (36)	12.1 (10)	19.4 (20)

where * indicates empty cell

TABLE B-37

I PREFER COURSES IN WHICH THE MATERIAL HELPS ME UNDERSTAND SOMETHING ABOUT MYSELF

(percentages with numbers in parentheses)

PREFER COURSES WHICH MATERIAL HELPS	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	1.2 (3)	1.2 (1)	1.9 (2)
Disagree	16.2 (41)	14.0 (12)	18.5 (19)
Agree	64.8 (164)	62.8 (54)	62.1 (64)
Strongly Agree	17.8 (45)	22.1 (19)	17.5 (18)

where * indicates empty cell

TABLE B-38

LEARNING ABOUT MYSELF DURING COLLEGE IS PROBABLY MORE IMPORTANT THAN PREPARING FOR A CAREER

(percentages with numbers in parentheses)

COLLEGE VERSUS CAREER	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	7.3 (18)	12.1 (10)	7.9 (8)
Disagree	55.7 (137)	54.2 (45)	61.4 (62)
Agree	29.7 (73)	26.5 (22)	26.7 (27)
Strongly Agree	7.3 (18)	7.2 (6)	4.0 (4)

where * indicates empty cell

TABLE B-39

GETTING THE BEST GRADES I CAN IS VERY IMPORTANT TO ME

(percentages with numbers in parentheses)

GRADES ARE IMPORTANT	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	0.8 (2)	1.2 (1)	*
Disagree	2.8 (7)	4.7 (4)	3.8 (4)
Agree	35.2 (89)	31.8 (27)	33.3 (35)
Strongly Agree	61.2 (155)	62.4 (53)	62.9 (66)

where * indicates empty cell

TABLE B-40

WHETHER OR NOT I STAY IN COLLEGE DEPENDS ON CIRCUMSTANCES BEYOND MY CONTROL

(percentages with numbers in parentheses)

COLLEGE DEPENDS ON CIRCUMSTANCES	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	38.3 (97)	33.7 (29)	41.4 (43)
Disagree	45.1 (114)	45.4 (39)	38.5 (40)
Agree	12.3 (31)	17.4 (15)	16.4 (17)
Strongly Agree	4.4 (11)	3.5 (3)	3.9 (4)

where * indicates empty cell

TABLE B-41

I'D RATHER FIGURE SOMETHING OUT FOR MYSELF THAN SIMPLY HAVE IT EXPLAINED TO ME

(percentages with numbers in parentheses)

FIGURE SOMETHING OUT FOR MYSELF	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	2.8 (7)	6.0 (5)	2.9 (3)
Disagree	38.4 (96)	47.0 (39)	32.0 (33)
Agree	47.6 (119)	38.6 (32)	50.5 (52)
Strongly Agree	11.2 (28)	8.4 (7)	14.6 (15)

where * indicates empty cell

TABLE B-42

I AM WILLING TO WORK VERY HARD IN A COURSE IN ORDER TO LEARN THE MATERIAL, EVEN IF IT WON'T LEAD TO A HIGHER GRADE

(percentages with numbers in parentheses)

WORK HARD IN COURSE	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	*	1.2 (1)	1.9 (2)
Disagree	1.6 (4)	2.3 (2)	1.9 (2)
Agree	49.6 (126)	54.7 (47)	42.9 (45)
Strongly Agree	48.8 (124)	41.9 (36)	53.3 (56)

where * indicates empty cell

TABLE B-43

THE GRADE I GET IN A COURSE DEPENDS ON HOW HARD THE INSTRUCTOR GRADES, NOT ON HOW CAREFULLY I STUDY

(percentages with numbers in parentheses)

INSTRUCTOR GRADES	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	2.4 (6)	2.3 (2)	3.9 (4)
Disagree	38.6 (98)	51.2 (44)	41.4 (43)
Agree	41.7 (106)	27.9 (24)	39.4 (41)
Strongly Agree	17.3 (44)	18.6 (16)	15.4 (16)

where * indicates empty cell

TABLE B-44

I'VE READ BOOKS OR ARTICLES WITH WHICH I STRONGLY DISAGREE

(percentages with numbers in parentheses)

READ BOOKS AND ARTICLES	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	3.6 (9)	4.8 (4)	3.9 (4)
Disagree	26.5 (66)	32.5 (27)	15.5 (16)
Agree	55.4 (138)	50.6 (42)	61.2 (63)
Strongly Agree	14.5 (36)	12.1 (10)	19.4 (20)

where * indicates empty cell

TABLE B-45

WHEN I DON'T UNDERSTAND SOMETHING IN A COURSE I WORK AT IT UNITL I DO

(percentages with numbers in parentheses)

WORK AT COURSE	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	1.2 (3)	1.2 (1)	1.9 (2)
Disagree	16.2 (41)	14.0 (12)	18.5 (19)
Agree	64.8 (164)	62.8 (54)	62.1 (64)
Strongly Agree	17.8 (45)	22.1 (19)	17.5 (18)

where * indicates empty cell

TABLE B-46

I ENJOY THE CHALLENGE OF LEARNING COMPLICATED NEW MATERIAL

(percentages with numbers in parentheses)

LEARNING COMPLICATED MATERIAL	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	7.3 (18)	12.0 (10)	7.9 (8)
Disagree	55.7 (137)	54.2 (45)	61.4 (62)
Agree	29.7 (73)	26.5 (22)	26.7 (27)
Strongly Agree	7.3 (18)	7.2 (6)	4.0 (4)

where * indicates empty cell

TABLE B-47

GOOD LUCK IS MORE IMPORTANT FOR ACADEMIC SUCCES THAN HARD WORK

(percentages with numbers in parentheses)

LUCK VERSUS HARD WORK	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	0.8 (2)	1.2 (1)	*
Disagree	2.8 (7)	4.7 (4)	3.8 (4)
Agree	35.2 (89)	31.8 (27)	33.3 (35)
Strongly Agree	61.3 (155)	62.4 (53)	62.9 (66)

where * indicates empty cell

TABLE B-48

I ENJOY READING POETRY AND LITERATURE

(percentages with numbers in parentheses)

ENJOY READING POETRY AND LITERATURE	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	38.4 (97)	33.7 (29)	41.4 (43)
Disagree	45.1 (114)	45.4 (39)	38.5 (40)
Agree	12.3 (31)	17.4 (15)	16.4 (17)
Strongly Agree	4.4 (11)	3.5 (3)	3.9 (4)

where * indicates empty cell

TABLE B-49

I ENJOY READING ABOUT SCIENCE

(percentages with numbers in parentheses)

ENJOY READING SCIENCE	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	2.8 (7)	6.0 (5)	2.9 (3)
Disagree	38.4 (96)	47.0 (39)	32.0 (33)
Agree	47.6 (119)	38.6 (32)	50.5 (52)
Strongly Agree	11.2 (28)	8.4 (7)	14.6 (15)

where * indicates empty cell

TABLE B-50

I ENJOY READING ABOUT HISTORY

(percentages with numbers in parentheses)

ENJOY READING HISTORY	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	1.6 (4)	2.3 (2)	1.0 (1)
Disagree	24.5 (62)	22.1 (19)	15.5 (16)
Agree	58.9 (149)	60.5 (52)	57.3 (59)
Strongly Agree	15.0 (38)	15.1 (13)	26.2 (27)

where * indicates empty cell

TABLE B-51

GETTING A GOOD GRADE IN A COURSE DEPENDS MORE ON BEING "NATURALLY" SMART THAN ON HOW HARD I WORK

(percentages with numbers in parentheses)

SMART VERSUS HARD WORK	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	15.1 (38)	12.8 (11)	19.2 (20)
Disagree	71.7 (180)	66.3 (57)	57.7 (60)
Agree	12.8 (32)	18.6 (16)	18.3 (19)
Strongly Agree	0.4 (1)	2.33 (2)	4.8 (5)

where * indicates empty cell

TABLE B-52

MY MAJOR PURPOSE FOR BEING IN COLLEGE IS TO PREPARE MYSELF FOR A CAREER

(percentages with numbers in parentheses)

PREPARE FOR CAREER	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	1.2 (3)	4.7 (4)	1.9 (2)
Disagree	15.1 (38)	20.9 (18)	17.3 (18)
Agree	50.2 (126)	50.0 (43)	51.0 (53)
Strongly Agree	33.5 (84)	24.4 (21)	29.8 (31)

where * indicates empty cell

TABLE B-53

I ENJOY TALKING WITH PEOPLE WHO HAVE VALUES DIFFERENT FROM MINE BECAUSE IT HELPS ME UNDERSTAND MYSELF AND MY VALUES BETTER

(percentages with numbers in parentheses)

ENJOY OTHERS' VALUES	FIG	SOCIOLOGY	CHEMISTRY
Strong Disagree	*	1.2 (1)	*
Disagree	5.2 (13)	7.1 (6)	5.8 (6)
Agree	74.0 (185)	76.2 (64)	65.1 (67)
Strongly Agree	20.8 (52)	15.5 (13)	29.1 (30)

where * indicates empty cell

TABLE B-54

I CONSIDER THE BEST TEACHERS TO BE THOSE WHO CAN TIE THINGS LEARNED IN CLASS TO THINGS THAT ARE IMPORTANT TO ME IN MY PERSONAL LIFE

(percentages with numbers in parentheses)

TIE CLASS TO PERSONAL LIFE	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	0.8 (2)	1.2 (1)	2.9 (3)
Disagree	18.0 (44)	30.6 (26)	13.5 (14)
Agree	62.7 (153)	54.1 (46)	56.7 (59)
Strongly Agree	18.4 (45)	14.1 (12)	26.9 (28)

where * indicates empty cell

TABLE B-55

I CAN ALMOST ALWAYS DO WELL IN A COURSE IF A PLAN AND ORGANIZE MY STUDY TIME

(percentages with numbers in parentheses)

PLAN AND ORGANIZE	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	49.2 (124)	34.5 (29)	47.6 (50)
Disagree	46.0 (116)	58.3 (49)	43.8 (46)
Agree	4.0 (10)	7.1 (6)	8.6 (9)
Strongly Agree	0.8 (2)	*	*

where * indicates empty cell

TABLE B-56

IT IS MORE IMPORTANT TO LEARN IDEAS AND CONCEPTS IN A COURSE THAN IT IS TO LEARN THE FACTS AND BASIC INFORMATION PRESENTED

(percentages with numbers in parentheses)

IDEAS AND CONCEPTS	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	13.5 (33)	16.7 (14)	11.4 (12)
Disagree	28.6 (70)	17.9 (15)	26.7 (28)
Agree	42.9 (105)	46.4 (39)	46.7 (49)
Strongly Agree	15.1 (37)	19.1 (16)	15.2 (16)

where * indicates empty cell

TABLE B-57

IN HIGH SCHOOL, I OFTEN TALKED TO MY TEACHERS OUTSIDE OF CLASS ABOUT IDEAS PRESENTE DURING CLASS

(percentages with numbers in parentheses)

TALKED TO TEACHERS OUTSIDE OF CLASS	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	10.6 (26)	15.3 (13)	2.9 (3)
Disagree	19.1 (47)	47.1 (40)	15.2 (16)
Agree	55.7 (137)	24.7 (21)	65.7 (69)
Strongly Agree	14.6 (36)	12.9 (11)	16.2 (17)

where * indicates empty cell

TABLE B-58

WHEN I HAVE TROUBLE LEARNING THE MATERIAL IN A COURSE, IT IS BECAUSE THE TEACHER ISN'T DOING A VERY GOOD JOB TEACHING

(percentages with numbers in parentheses)

GOOD TEACHING JOB	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	7.2 (18)	11.8 (10)	6.7 (7)
Disagree	23.6 (59)	27.1 (23)	31.4 (33)
Agree	54.8 (137)	45.9 (39)	48.6 (51)
Strongly Agree	14.4 (36)	15.3 (13)	13.3 (14)

where * indicates empty cell

TABLE B-59

LEARNING ABOUT PEOPLE FROM DIFFERENT CULTURES IS A VERY IMPORTANT PART OF A COLLEGE EDUCATION

(percentages with numbers in parentheses)

DIFFERENT CULTURES	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	18.6 (46)	16.3 (14)	23.1 (24)
Disagree	65.3 (162)	62.8 (54)	54.8 (57)
Agree	15.3 (38)	17.4 (15)	21.2 (22)
Strongly Agree	0.8 (2)	3.5 (3)	1.0 (1)

where * indicates empty cell

TABLE B-60

LEARNING HOW TO LEARN IS IMPORTANT TO ME

(percentages with numbers in parentheses)

LEARNING HOW TO LEARN	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	2.0 (5)	3.6 (3)	1.9 (2)
Disagree	7.8 (19)	6.0 (5)	7.8 (8)
Agree	49.0 (120)	46.4 (39)	45.6 (47)
Strongly Agree	41.2 (101)	44.1 (37)	44.7 (46)

where * indicates empty cell

TABLE B-61

I ENJOY EXPRESSING MY IDEAS IN WRITING

(percentages with numbers in parentheses)

EXPRESSING IDEAS IN WRITING	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	0.8 (2)	*	*
Disagree	9.6 (24)	9.5 (8)	12.4 (13)
Agree	60.2 (151)	57.1 (48)	61.0 (64)
Strongly Agree	29.5 (74)	33.3 (28)	26.7 (28)

where * indicates empty cell

TABLE B-62

IN HIGH SCHOOL, I FREQUENTLY DID MORE READING IN A COURSE THAT WAS REQUIRED SIMPLY BECAUSE IT INTERESTED ME

(percentages with numbers in parentheses)

MORE READING	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	0.4 (1)	2.4 (2)	*
Disagree	10.2 (25)	12.9 (11)	18.3 (19)
Agree	52.9 (130)	48.2 (41)	53.9 (56)
Strongly Agree	36.6 (90)	36.5 (31)	27.9 (29)

where * indicates empty cell

TABLE B-63

THE COURSES I ENJOY THE MOST ARE THOSE THAT MAKE ME THINK ABOUT THINGS FROM A DIFFERENT PERSPECTIVE

(percentages with numbers in parentheses)

DIFFERENT PERSPECTIVE	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	0.8 (2)	3.5 (3)	*
Disagree	5.2 (13)	7.0 (6)	12.5 (13)
Agree	57.2 (143)	62.8 (54)	43.3 (45)
Strongly Agree	36.8 (92)	26.7 (23)	44.2 (46)

where * indicates empty cell

TABLE B-64

LEARNING IS IMPORTANT TO ME BECAUSE IT WILL GIVE ME GREATER CONTROL OVER MY LIFE

(percentages with numbers in parentheses)

LEARNING AND CONTROL	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	*	2.4 (2)	*
Disagree	20.4 (50)	17.9 (15)	12.6 (13)
Agree	58.0 (142)	67.9 (57)	65.1 (67)
Strongly Agree	21.6 (53)	11.9 (10)	22.3 (23)

where * indicates empty cell

TABLE B-65

I STUDY MORE TO MAINTAIN MY GRADE-POINT AVERAGE THAN TO REALLY UNDERSTAND THE MATERIAL

(percentages with numbers in parentheses)

GRADE-POINT AVERAGE	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	6.4 (16)	10.6 (9)	9.6 (10)
Disagree	42.8 (107)	44.7 (38)	40.4 (42)
Agree	43.2 (108)	29.4 (25)	41.4 (43)
Strongly Agree	7.6 (19)	15.3 (13)	8.7 (9)

where * indicates empty cell

TABLE B-66

FOR ME, ONE OF THE MOST IMPORTANT BENEFITS OF A COLLEGE EDUCATION WILL BE A BETTER UNDERSTANDING OF MYSELF AND MY VALUES

(percentages with numbers in parentheses)

MYSELF AND VALUES	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	5.9 (14)	10.0 (8)	12.4 (12)
Disagree	57.7 (138)	56.3 (45)	41.2 (40)
Agree	35.2 (84)	28.8 (23)	40.2 (39)
Strongly Agree	1.3 (3)	5.0 (4)	6.2 (6)

where * indicates empty cell

TABLE B-67

DEVELOPING A CLEARER SENSE OF WHO I AM IS VERY IMPORTANT TO ME

(percentages with numbers in parentheses)

WHO I AM	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	0.4 (1)	2.4 (2)	3.9 (4)
Disagree	14.4 (36)	9.4 (8)	13.7 (14)
Agree	62.8 (157)	61.2 (52)	59.8 (61)
Strongly Disagree	22.4 (56)	27.1 (23)	22.6 (23)

where * indicates empty cell

TABLE B-68

AFTER I WRITE ABOUT SOMETHING, I SEE THAT SUBJECT DIFFERENTLY

(percentages with numbers in parentheses)

WRITE ABOUT SUBJECT	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	*	3.5 (3)	1.0 (1)
Disagree	6.0 (15)	3.5 (3)	7.7 (8)
Agree	58.8 (147)	62.4 (53)	65.4 (68)
Strongly Agree	35.2 (88)	30.6 (26)	26.0 (27)

where * indicates empty cell

TABLE B-69

I PREFER READING THINGS THAT ARE RELEVANT TO MY PERSONAL EXPERIENCE

(percentages with numbers in parentheses)

PERSONAL EXPERIENCE	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	6.0 (15)	4.7 (4)	2.9 (3)
Disagree	32.1 (80)	23.3 (20)	40.4 (42)
Agree	43.4 (108)	46.5 (40)	43.3 (45)
Strongly Agree	18.5 (46)	25.6 (22)	13.5 (14)

where * indicates empty cell

TABLE B-70

IF I HAVE SOMETHING GOOD TO READ, I'M NEVER BORED

(percentages with numbers in parentheses)

GOOD TO READ	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	12.5 (31)	14.1 (12)	12.5 (13)
Disagree	55.8 (139)	45.9 (39)	46.2 (48)
Agree	25.7 (64)	30.6 (26)	36.5 (38)
Strongly Agree	6.0 (15)	9.4 (8)	4.8 (5)

where * indicates empty cell

TABLE B-71

I ENJOY TAKING COURSES THAT CHALLENGE MY BELIEFS AND VALUES

(percentages with numbers in parentheses)

CHALLENGE BELIEFS	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	*	1.2 (1)	*
Disagree	10.0 (25)	10.6 (9)	16.8 (17)
Agree	73.6 (184)	71.8 (61)	59.4 (60)
Strongly Agree	16.4 (41)	16.5 (14)	23.8 (24)

where * indicates empty cell

TABLE B-72

WHEN I DO WELL ON A TEST, IT IS USUALLY BECAUSE I WAS WELL PREPARED, NOT BECAUSE THE TEST WAS EASY

(percentages with numbers in parentheses)

WELL PREPARED	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	0.4 (1)	1.2 (1)	*
Disagree	4.4 (11)	7.1 (6)	5.8 (6)
Agree	59.6 (149)	60.0 (51)	50.5 (52)
Strongly Agree	35.6 (89)	31.8 (27)	43.7 (45)

where * indicates empty cell

TABLE B-73

MY ACADEMIC EXPERIENCE (I.E. COURSES, LABS, STUDYING, DISCUSSIONS WITH FACULTY) WILL BE THE MOST ENJOYABLE PART OF COLLEGE

(percentages with numbers in parentheses)

ENJOYABLE ACADEMIC EXPERIENCE	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	4.5 (11)	4.8 (4)	4.0 (4)
Disagree	47.4 (116)	43.4 (36)	49.0 (49)
Agree	42.5 (104)	42.2 (35)	38.0 (38)
Strongly Agree	5.7 (14)	9.6 (8)	9.0 (9)

where * indicates empty cell

TABLE B-74

MY ACADEMIC EXPERIENCE (I.E. COURSES, LABS, STUDYING, DISCUSSIONS WITH FACULTY) WILL BE THE MOST IMPORTANT PART OF COLLEGE

(percentages with numbers in parentheses)

IMPORTANT ACADEMIC EXPERIENCE	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	0.4 (1)	2.4 (2)	2.9 (3)
Disagree	20.9 (52)	15.3 (13)	21.4 (22)
Agree	61.0 (152)	64.7 (55)	62.1 (64)
Strongly Agree	17.7 (44)	17.7 (15)	13.6 (14)

where * indicates empty cell

TABLE B-75

I EXPECT TO HAVE FREQUENT DISCUSSIONS WITH MY TEACHERS OUTSIDE OF CLASS

(percentages with numbers in parentheses)

FREQUENT DISCUSSIONS WITH TEACHERS	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	*	2.4 (2)	1.9 (2)
Disagree	16.5 (41)	15.3 (13)	18.5 (19)
Agree	59.4 (148)	64.7 (55)	57.3 (59)
Strongly Agree	24.1 (60)	17.7 (15)	22.3 (23)

where * indicates empty cell

TABLE B-76

I EXPECT TO HAVE FREQUENT DISCUSSIONS ABOUT CLASS MATERIAL WITH MY CLASSMATES OUTSIDE OF CLASS

(percentages with numbers in parentheses)

FREQUENT DISCUSSIONS WITH CLASSMATES	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	0.4 (1)	2.4 (2)	1.0 (1)
Disagree	35.3 (85)	30.1 (25)	43.6 (44)
Agree	56.4 (136)	57.8 (48)	42.6 (43)
Strongly Agree	7.9 (19)	9.6 (8)	12.9 (13)

where * indicates empty cell

TABLE B-77

I ENJOY COURSES THAT ARE INTELLECTUALLY CHALLENGING

(percentages with numbers in parentheses)

INTELLECTUALLY CHALLENGING	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	1.2 (3)	4.7 (4)	1.0 (1)
Disagree	24.8 (62)	22.4 (19)	30.8 (32)
Agree	57.2 (143)	57.7 (49)	50.0 (52)
Strongly Agree	16.8 (42)	15.3 (13)	18.3 (19)

where * indicates empty cell

TABLE B-78

I ENJOY HAVING DISCUSSIONS WITH PEOPLE WHOSE IDEAS AND VALUES ARE DIFFERENT FROM MY OWN

(percentages with numbers in parentheses)

DIFFERENT VALUES	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	2.0 (5)	5.8 (5)	1.0 (1)
Disagree	26.8 (67)	18.6 (16)	19.2 (20)
Agree	43.2 (108)	38.4 (33)	47.1 (49)
Strongly Agree	28.0 (70)	37.2 (32)	32.7 (34)

where * indicates empty cell

TABLE B-79

THE REAL VALUE OF A COLLEGE EDUCATION LIES IN BEING INTRODUCED TO DIFFERENT VALUES

(percentages with numbers in parentheses)

DIFFERENT VALUES	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	2.0 (5)	1.2 (1)	3.0 (3)
Disagree	29.1 (71)	26.2 (22)	33.0 (33)
Agree	57.0 (139)	56.0 (47)	53.0 (53)
Strongly Agree	11.9 (29)	16.7 (14)	11.0 (11)

where * indicates empty cell

TABLE B-80

I CAN LEARN MORE FROM DOING THAN FROM READING

(percentages with numbers in parentheses)

DOING VERSUS READING	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	*	2.4 (2)	*
Disagree	9.8 (24)	7.1 (6)	9.6 (10)
Agree	61.2 (150)	60.0 (51)	51.0 (53)
Strongly Agree	29.0 (71)	30.6 (26)	39.4 (41)

where * indicates empty cell

TABLE B-81

I PREFER EXAMS REQUIRING ME TO ORGANIZE AND INTERPRET INFORMATION OR IDEAS OVER EXAMS THAT ASK ME ONLY TO REMEMBER FACTS OR INFORMATION

(percentages with numbers in parentheses)

INTERPRET VERSUS REMEMBER	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	9.8 (24)	9.5 (8)	4.0 (4)
Disagree	62.6 (154)	46.4 (39)	46.5 (47)
Agree	24.0 (59)	34.5 (29)	41.0 (41)
Strongly Agree	3.7 (9)	9.5 (8)	8.9 (9)

where * indicates empty cell

TABLE B-82

IN HIGH SCHOOL, I OFTEN HAD DISCUSSIONS WITH OTHER STUDENTS ABOUT IDEAS OR CONCEPTS PRESENTED IN CLASSES

(percentages with numbers in parentheses)

IDEAS OR CONCEPTS	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	2.4 (6)	3.6 (3)	1.0 (1)
Disagree	23.0 (57)	14.3 (12)	8.7 (9)
Agree	52.0 (129)	58.3 (49)	65.1 (67)
Strongly Agree	22.6 (56)	23.8 (20)	25.2 (26)

where * indicates empty cell

TABLE B-83

I PREFER TO DO ASSIGNMENTS IN WHICH I HAVE TO ANALYZE AND INTERPRET WHAT I'VE READ RATHER THAN JUST SUMMARIZE AND REPORT

(percentages with numbers in parentheses)

READ RATHER THAN SUMMARIZE	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	7.2 (18)	11.9 (10)	12.6 (13)
Disagree	58.2 (145)	53.6 (45)	49.5 (51)
Agree	32.5 (81)	31.0 (26)	33.0 (34)
Strongly Agree	2.0 (5)	3.6 (3)	4.9 (5)

where * indicates empty cell

TABLE B-84

CONTACT WITH INDIVIDUALS WHOSE BACKGROUND (E.G. RACE, NATIONAL ORIGIN) IS DIFFERENT FROM MY OWN IS AN ESSENTIAL PART OF MY COLLEGE EDUCATION

(percentages with numbers in parentheses)

INDIVIDUALS' BACKGROUND	FIG	SOCIOLOGY	CHEMISTRY
Strongly Disagree	*	4.7 (4)	3.9 (4)
Disagree	9.6 (24)	18.8 (16)	11.8 (12)
Agree	68.3 (170)	60.0 (51)	62.8 (64)
Strongly Agree	22.1 (55)	16.5 (14)	21.6 (22)

where * indicates empty cell

TABLE B-85

WHY DID YOU DECIDE TO ENROLL IN A FRESHMAN INTEREST GROUP?

(percentages with numbers in parentheses)

FRESHMAN INTEREST GROUP	FIG	SOCIOLOGY	CHEMISTRY
Courses seemed interesting	13.6 (11)	*	*
Courses required for major	9.9 (8)	*	*
Chance to meet other freshmen	13.6 (11)	*	*
Oppor. to learn how to study	3.7 (3)	*	*
Oppor. be with small group	21.0 (17)	*	*
Only way to get a class	7.4 (6)	*	*
Interest in theme of FIG	21.0 (17)	*	*
To get a better grade	3.7 (3)	*	*
Other	6.2 (5)	*	*

where * indicates empty cell

TABLE B-86

HOW DID YOU HEAR ABOUT THE FRESHMAN INTEREST GROUPS?

(percentages with numbers in parentheses)

FRESHMAN INTEREST GROUPS	FIG	SOCIOLOGY	CHEMISTRY
At new student orientation	35.4 (79)	*	*
From material sent in mail	37.2 (83)	*	*
High school teacher or counsel	2.7 (6)	*	*
From a college advisor	9.9 (22)	*	*
From a friend or relative	12.6 (28)	*	*
Other	2.2 (5)	*	*

where * indicates empty cell

TABLE B-87

WHERE DO YOU NOW LIVE?
(Spring)

(percentages with numbers in parentheses)

NOW LIVE	FIG	SOCIOLOGY	CHEMISTRY
College Dorm	59.5 (151)	43.7 (38)	49.5 (52)
Fraternity or Sorority House	19.3 (49)	33.3 (29)	13.3 (14)
College Married Student Hous.	*	*	1.0 (1)
Off-Campus Room or Apartment	5.9 (15)	4.6 (4)	9.5 (10)
Home of Parents or Relatives	14.6 (37)	17.2 (15)	23.8 (25)
Own Home	0.4 (1)	*	*
Other	0.4 (1)	1.2 (1)	2.9 (3)

where * indicates empty cell

TABLE B-88

ARE YOU CURRENTLY EMPLOYED?
(Spring)

(percentages with numbers in parentheses)

CURRENTLY EMPLOYED	FIG	SOCIOLOGY	CHEMISTRY
Yes	34.1 (87)	49.4 (43)	37.1 (39)
No	65.9 (168)	50.6 (44)	62.9 (66)

where * indicates empty cell

TABLE B-89

IF EMPLOYED, ARE YOU EMPLOYED:
(Spring)

(percentages with numbers in parentheses)

WHERE EMPLOYED	FIG	SOCIOLOGY	CHEMISTRY
On-Campus	33.3 (29)	30.2 (13)	52.6 (20)
Off-Campus	66.7 (58)	69.8 (30)	47.4 (18)

where * indicates empty cell

TABLE B-90

IF EMPLOYED, HOW MANY HOURS PER WEEK ARE YOU WORKING? (Spring)

(percentages with numbers in parentheses)

HOURS PER WEEK	FIG	SOCIOLOGY	CHEMISTRY
1 to 10 hours	36.4 (32)	29.6 (13)	28.2 (11)
11 to 20 hours	45.5 (40)	54.6 (24)	66.8 (26)
21 to 30 hours	10.2 (9)	13.6 (6)	2.6 (1)
31 to 40 hours	5.7 (5)	2.3 (1)	2.6 (1)
Over 40 hours	2.3 (2)	*	*

where * indicates empty cell

TABLE B-91

IF EMPLOYED, HOW DOES IT AFFECT YOUR COLLEGE WORK? (Spring)

(percentages with numbers in parentheses)

AFFECT COLLEGE WORK	FIG	SOCIOLOGY	CHEMISTRY
Does not interfere with work	42.5 (37)	25.0 (11)	41.0 (16)
Takes some time from work	51.7 (45)	75.0 (33)	48.7 (19)
Takes a lot of time from work	5.8 (5)	*	10.3 (4)

where * indicates empty cell

TABLE B-92

ARE YOU CURRENTLY RECEIVING FINANCIAL AID? (Spring)

(percentages with numbers in parentheses)

RECEIVING FINANCIAL AID	FIG	SOCIOLOGY	CHEMISTRY
Yes	27.9 (70)	33.7 (29)	33.3 (35)
No	72.1 (181)	66.3 (57)	66.7 (70)

where * indicates empty cell

TABLE B-93

HOW MANY CREDIT HOURS ARE YOU ENROLLED FOR DURING THIS QUARTER?
(Spring)

(percentages with numbers in parentheses)

CREDITS THIS QUARTER	FIG	SOCIOLOGY	CHEMISTRY
6 credits or less	0.8 (2)	*	1.0 (1)
7 to 12 credits	3.9 (10)	9.3 (8)	8.6 (9)
more than 12 credits	95.3 (243)	90.7 (78)	90.5 (95)

where * indicates empty cell

TABLE B-94

WHAT IS THE HIGHEST DEGREE YOU INTEND TO OBTAIN?
(Spring)

(percentages with numbers in parentheses)

HIGHEST DEGREE	FIG	SOCIOLOGY	CHEMISTRY
None	0.4 (1)	1.2 (1)	*
Vocational Certificate	*	*	*
Associate (2 year) Degree	*	*	*
Bachelor's Degree (BA,BS,etc)	14.9 (36)	12.4 (10)	15.7 (16)
Master's Degree (MA,MS,etc)	8.3 (20)	11.1 (9)	20.6 (21)
Ph.D or Ed.D	4.2 (10)	6.2 (5)	2.0 (2)
M.D.,D.O.,D.D.S. or D.V.M.	*	*	2.0 (2)
J.D. or LL.B. (Law)	27.0 (65)	28.4 (23)	13.7 (17)
Other	45.2 (109)	40.7 (33)	43.1 (44)

where * indicates empty cell

TABLE B-95

HOW IMPORTANT IS IT FOR YOU TO COMPLETE A COLLEGE DEGREE AT ANY UNIVERSITY?
(Spring)

(percentages with numbers in parentheses)

COMPLETE DEGREE ANY UNIVERSITY	FIG	SOCIOLOGY	CHEMISTRY
Very important	94.0 (188)	88.2 (60)	92.8 (77)
Somewhat important	6.0 (12)	10.3 (7)	7.2 (6)
Slightly important	*	*	*
Not at all important	*	1.5 (1)	*

where * indicates empty cell

TABLE B-96

HOW IMPORTANT IS IT FOR YOU TO COMPLETE A COLLEGE DEGREE AT THIS UNIVERSITY?
(Spring)

(percentages with numbers in parentheses)

COLLEGE DEGREE THIS UNIVERSITY	FIG	SOCIOLOGY	CHEMISTRY
Very important	60.6 (140)	64.2 (52)	65.4 (57)
Somewhat important	26.4 (61)	18.5 (15)	27.7 (28)
Slightly important	10.0 (23)	8.6 (7)	7.9 (8)
Not at all important	3.0 (7)	8.6 (7)	7.9 (8)

where * indicates empty cell

TABLE B-97

WHICH TYPE OF CLASS FORMAT DO YOU MOST PREFER? (Spring)

(percentages with numbers in parentheses)

CLASS FORMAT	FIG	SOCIOLOGY	CHEMISTRY
Lecture format	26.2 (66)	31.4 (27)	18.3 (19)
Small-group format	53.2 (134)	53.5 (46)	64.4 (67)
Independent study format	0.8 (2)	1.2 (1)	3.9 (4)
Laboratory or shop format	1.2 (3)	1.2 (1)	3.9 (4)
Private tutor format	2.4 (6)	3.5 (3)	2.9 (3)
Correspondence course	0.4 (1)	*	*
Other format	0.8 (2)	*	*
No preference	15.1 (38)	9.3 (8)	6.7 (7)

where * indicates empty cell

TABLE B-98

HOW DO YOU BEST LEARN?
(Spring)

(percentages with numbers in parentheses)

BEST LEARN	FIG	SOCIOLOGY	CHEMISTRY
Alone	38.3 (95)	25.6 (22)	34.0 (35)
With friends	16.9 (42)	16.3 (14)	16.5 (17)
Being tutored	6.5 (16)	10.5 (9)	9.7 (10)
In a classroom lecture	5.2 (13)	8.1 (7)	5.8 (6)
In a classroom discussion	23.0 (57)	29.1 (25)	24.3 (25)
In a laboratory or shop	2.0 (5)	1.2 (1)	2.9 (3)
Do not know	8.1 (20)	9.3 (8)	6.8 (7)

where * indicates empty cell

TABLE B-99

WHAT IS YOUR BEST GUESS AS TO THE CHANCES THAT YOU WILL:

NEED EXTRA TIME TO COMPLETE YOUR DEGREE REQUIREMENTS?
(Spring)

(percentages with numbers in parentheses)

NEED EXTRA TIME	FIG	SOCIOLOGY	CHEMISTRY
Very Good Chance	28.0 (71)	33.0 (29)	34.3 (36)
Some Chance	50.0 (127)	47.7 (42)	50.5 (53)
Little Chance	19.7 (50)	17.1 (15)	10.5 (11)
No Chance	2.4 (6)	2.3 (2)	4.8 (5)

where * indicates empty cell

TABLE B-100

WHAT IS YOUR BEST GUESS AS TO THE CHANCES THAT YOU WILL:

DROP OUT OF THIS COLLEGE TEMPORARILY?
(Spring)

(percentages with numbers in parentheses)

DROP OUT TEMPORARILY	FIG	SOCIOLOGY	CHEMISTRY
Very Good Chance	2.8 (7)	5.8 (5)	4.8 (5)
Some Chance	9.1 (23)	4.6 (4)	9.5 (10)
Little Chance	43.1 (109)	37.9 (33)	41.0 (43)
No Chance	45.1 (114)	51.7 (45)	44.8 (47)

where * indicates empty cell

TABLE B-101

WHAT IS YOUR BEST GUESS AS TO THE CHANCES THAT YOU WILL:

TRANSFER TO ANOTHER COLLEGE BEFORE GRADUATING? (Spring)

(percentages with numbers in parentheses)

TRANSFER BEFORE GRADUATING	FIG	SOCIOLOGY	CHEMISTRY
Very Good Chance	4.4 (11)	11.5 (10)	12.4 (13)
Some Chance	24.5 (62)	16.1 (14)	24.8 (26)
Little Chance	48.2 (122)	48.3 (42)	47.6 (50)
No Chance	22.9 (58)	24.1 (21)	15.2 (16)

where * indicates empty cell

TABLE B-102

WHAT IS YOUR BEST GUESS AS TO THE CHANCES THAT YOU WILL:

GET A BACHELOR'S DEGREE?
(Spring)

(percentages with numbers in parentheses)

GET A BACHELOR'S DEGREE	FIG	SOCIOLOGY	CHEMISTRY
Very Good Chance	94.9 (241)	92.0 (80)	87.6 (92)
Some Chance	4.7 (12)	5.8 (5)	11.4 (12)
Little Chance	0.4 (1)	1.2 (1)	*
No Chance	*	1.2 (1)	1.0 (1)

where * indicates empty cell

TABLE B-103

WHAT IS YOUR BEST GUESS AS TO THE CHANCES THAT YOU WILL:

MAKE AT LEAST A "B" AVERAGE?
(Spring)

(percentages with numbers in parentheses)

MAKE "B" AVERAGE	FIG	SOCIOLOGY	CHEMISTRY
Very Good Chance	71.3 (181)	64.4 (56)	66.7 (70)
Some Chance	27.2 (69)	33.3 (29)	28.6 (30)
Little Chance	1.6 (4)	1.2 (1)	3.8 (4)
No Chance	*	1.2 (1)	1.0 (1)

where * indicates empty cell

TABLE B-104

ABOUT HOW MANY HOURS A WEEK DO YOU USUALLY SPEND STUDYING OR PREPARING FOR YOUR CLASSES?
(Spring)

(percentages with numbers in parentheses)

HOURS PREPARING	FIG	SOCIOLOGY	CHEMISTRY
1 to 5 hours	9.8 (25)	16.1 (14)	6.7 (7)
6 to 10 hours	29.1 (74)	26.4 (23)	26.7 (28)
11 to 15 hours	29.9 (76)	35.6 (31)	22.9 (24)
16 to 20 hours	20.1 (51)	16.1 (14)	26.7 (28)
more than 20 hours	11.0 (28)	5.8 (5)	17.1 (18)

where * indicates empty cell

TABLE B-105

OF THE HOURS YOU USUALLY SPEND STUDYING OR PREPARING FOR CLASSES, WHAT PROPORTION DO YOU USUALLY SPEND STUDYING OR PREPARING FOR CLASSES WITH OTHER PEOPLE?
(Spring)

(percentages with numbers in parentheses)

CLASSES WITH OTHER PEOPLE	FIG	SOCIOLOGY	CHEMISTRY
None of the time	23.3 (59)	27.3 (24)	28.6 (30)
Some of the time	69.2 (175)	68.2 (60)	63.8 (67)
Much of the time	6.7 (17)	4.6 (4)	6.7 (7)
Most of the time	0.8 (2)	*	1.0 (1)

where * indicates empty cell

TABLE B-106

HOW MANY NEW FRIENDS AMONG STUDENTS HAVE YOU MADE SINCE COMING TO THE UNIVERSITY? (Spring)

(percentages with numbers in parentheses)

NEW FRIENDS	FIG	SOCIOLOGY	CHEMISTRY
None	*	3.4 (3)	1.9 (2)
One or two	6.7 (17)	8.0 (7)	11.5 (12)
Several	30.7 (78)	19.3 (17)	34.6 (36)
Many	62.6 (159)	69.3 (61)	51.9 (54)

where * indicates empty cell

TABLE B-107

IF YOU WERE A MEMBER OF A FRESHMAN INTEREST GROUP ARE YOU FRIENDS WITH ANY MEMBERS OF YOUR FRESHMAN INTEREST GROUP? (Spring)

(percentages with numbers in parentheses)

FRIENDS	FIG
Yes	85.3 (214)
No	14.7 (37)

where * indicates empty cell

TABLE B-108

IF YOU WERE A MEMBER OF A FRESHMAN INTEREST GROUP, ARE YOU

TO THE BEST OF YOUR KNOWLEDGE, TAKING CLASSES THIS QUARTER WITH ANY MEMBERS OF YOUR FRESHMAN INTEREST GROUP?
(Spring)

(percentages with numbers in parentheses)

CLASSES WITH FRIENDS	FIG
Yes	77.7 (195)
No	22.3 (56)

where * indicates empty cell

TABLE B-109

IF YOU WERE A MEMBER OF A FRESHMAN INTEREST GROUP, DO YOU STUDY WITH THOSE STUDENTS? (Spring)

(percentages with numbers in parentheses)

STUDY WITH THOSE STUDENTS	FIG
Yes	36.1 (74)
No	63.9 (131)

where * indicates empty cell

TABLE B-110

HOW VALUABLE WERE THE FRESHMAN INTEREST GROUPS IN:

GIVING YOU A CHANCE TO MEET PEOPLE AND MAKE FRIENDS (Spring)

(percentages with numbers in parentheses)

MAKE FRIENDS	FIG
Very Valuable	49.0 (108)
Valuable	28.7 (72)
Somewhat Valuable	23.9 (60)
Not Valuable	4.4 (11)

where * indicates empty cell

TABLE B-111

HOW VALUABLE WERE THE FRESHMAN INTEREST GROUPS IN:

GIVING YOU A CHANCE TO LEARN ABOUT THE UNIVERSITY
(Spring)

(percentages with numbers in parentheses)

LEARNING ABOUT UNIVERSITY	FIG
Very Valuable	20.0 (50)
Valuable	35.6 (89)
Somewhat Valuable	36.4 (91)
Not Valuable	8.0 (20)

where * indicates empty cell

TABLE B-112

HOW VALUABLE WERE THE FRESHMAN INTEREST GROUPS IN:

ALLOWING YOU TO TAKE SEVERAL COURSES UNDER A SPECIFIC THEME (Spring)

(percentages with numbers in parentheses)

SPECIFIC COURSES	FIG
Very Valuable	28.7 (72)
Valuable	38.7 (97)
Somewhat Valuable	24.7 (62)
Not Valuable	8.0 (20)

where * indicates empty cell

TABLE B-113

HOW VALUABLE WERE THE FRESHMAN INTEREST GROUPS IN:

ALLOWING YOU TO STUDY TOGETHER WITH OTHER STUDENTS (Spring)

(percentages with numbers in parentheses)

STUDY WITH OTHER STUDENTS	FIG
Very Valuable	23.5 (59)
Valuable	35.1 (88)
Somewhat Valuable	29.1 (73)
Not Valuable	12.4 (31)

where * indicates empty cell

TABLE B-114

HOW VALUABLE WERE THE FRESHMAN INTEREST GROUPS IN:

GIVING YOU SOME DIRECTION FOR YOUR FUTURE AT THE UNIVERSITY (Spring)

(percentages with numbers in parentheses)

DIRECTION AT THE UNIVERSITY	FIG
Very Valuable	11.2 (28)
Valuable	27.5 (69)
Somewhat Valuable	42.2 (106)
Not Valuable	19.1 (48)

where * indicates empty cell

TABLE B-115

HOW VALUABLE WERE THE FRESHMAN INTEREST GROUPS IN:

GIVING YOU A SENSE OF BELONGING AT THE UNIVERSITY (Spring)

(percentages with numbers in parentheses)

SENSE OF BELONGING	FIG
Very Valuable	20.7 (52)
Valuable	30.7 (77)
Somewhat Valuable	33.5 (84)
Not Valuable	15.1 (38)

where * indicates empty cell

APPENDIX C

SITE VISIT INTERVIEW QUESTIONS

Interview Questions for Second Site Visit - December 1991

The questions below were a guide for interviewing students. I did not ask all the questions of all the students; I did ask more specific questions to follow up on these general questions.

How has your first quarter been?

Tell me about a typical day for you.

Tell me about what's happening in you FIG. What do you do during your Friday FIG meetings?

How's your Writing Link class? What kinds of things are you doing in there? Tell me about the peer review process for writing papers.

How are your other classes? What kinds of things are you doing for them? (papers, tests, group projects, etc.)

How does your experience so far compare with high school?

Why did you join a FIG? What were your expectations of the FIG?

Do you see the people in your FIG outside of classes? What kind of things do you do (studying, going out, eating, etc.)?

How does the FIG experience fit in with the rest of your college experience so far? Would you join a FIG again? Would you recommend that other people join a FIG?

Where do you live? What's it like to live there (in the dorms, in a Greek house, in an apartment, at home)?

What are you thinking of majoring in? What would you like to do when you graduate?

Do you work? How many hours? Doing what? Off-campus or on-campus?

Are you involved in any campus or student activities? Tell me about them.

Tell me about the other people in your FIG, those who you think really got a lot out of it and those who didn't.

Interview Questions for Third Site Visit - April, 1992

What follows is an outline of some broad themes I pursued with students at Western University. I did not ask all the students all of the questions. I interviewed some students twice during the visit so that I could get more in-depth with a few people.

People told me that if they could change something about the FIGs, they would cut out the social event or the cultural event. What do you think it was about the social event that made it undesirable? Why did so few people attend those kinds of events?

If I gave you a camera and asked you to take pictures that showed "what WU is like", what would you take pictures of?

Some people I talked to in December said that they didn't really click with the her FIG because they felt like they didn't have anything in common with the other people in the group. How did you feel about the people in the group?

I was wondering if you could tell me what things you do during your day that are academic or intellectual in nature, and which are social.

Some students only talk about their classes when I ask them what they are learning. Why do you think no one talks about learning through their social activities?

Lots of people said that some classes were "dull and boring". Have you had a class like that? What about it was "dull and boring"?

Describe a class that was very interesting to you. What about it was interesting? What could someone to do make something interesting to you?

If you had to explain to a person from another planet why you were in college, what would you say? (Why are you in college?)

What do you want to do when you graduate?

If you could do that right now without needing to finish college, would you leave? Why or why not? (Alternate way of asking this: if you won $10 million in the lottery, what would you do?)

If you were told that getting a college degree wouldn't get you a better job than a high school diploma, would you go to college?

How might you see yourself learning after college?

I was talking to (give a fictitious name) yesterday, and she said she hadn't done any work, but then she went on to say that she'd been to the library for a while, worked out in the weight room, written a poem and a letter for her boyfriend, gone shopping for a birthday card for a friend, etc. That sounds like a lot of work to me. Help me out here, explain this to me. (What is "work"?)

What does work have to do with learning?

If you were to tell me that you had really been working hard in college, what would you be doing?

Some students have talked about learning and doing lots of work as similar things. What do you think about that? Is that true for you?

Is being a student "work"?